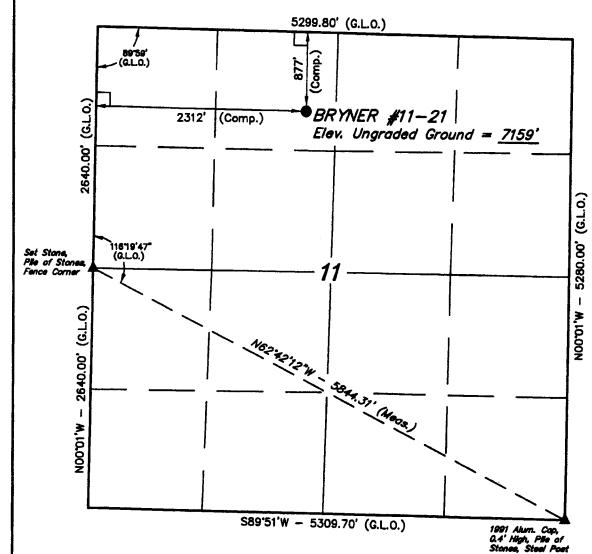
# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

AMENDED REPORT	
(highlight changes)	

	APPLICATION FOR	PERMIT TO	DRILL	5. MINERAL LEASE NO: 6. SURFACE: Patented Fee		
1A. TYPE OF WO	RK: DRILL  REENTER	7. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A				
B. TYPE OF WE	L: OIL GAS / OTHER	SINC	GLE ZONE MULTIPLE ZONI	8. UNIT OF CA AGREEMENT NAME: N/A		
2. NAME OF OPE				9. WELL NAME and NUMBER:		
	da Resources (USA), Inc.		PHONE NUMBER:	Bryner 11-21  10. FIELD AND POOL, OR WILDCAT:		
3. ADDRESS OF 6 1099-18th S	St. Suite 400 and Denver	ATE CO 21P 802	202 (303) 297-2100	undesignated wildest		
4. LOCATION OF	WELL (FOOTAGES) 5388	53×	39,794776	MERIDIAN:		
AT SURFACE:	### 53%   53	869 Y -1 WL,	10.546199	NENW 11 12S 12E S		
	MILES AND DIRECTION FROM NEAREST TOWN OR P			12. COUNTY: 13. STATE:		
	s northeast of Wellington, Utah			Carbon		
15. DISTANCE TO	NEAREST PROPERTY OR LEASE LINE (FEET)	16. NUMBER OF	ACRES IN LEASE:	17. NUMBER OF ACRES ASSIGNED TO THIS WELL:		
338'			440	40		
	ONEAREST WELL (DRILLING, COMPLETED, OR R) ON THIS LEASE (FEET)	19. PROPOSED	в,000 <sup>°</sup>	20. BOND DESCRIPTION: Fidelity Bond # 4127699		
None	(SHOW WHETHER DF, RT, GR, ETC.):	22 APPROXIMA	TE DATE WORK WILL START:	23. ESTIMATED DURATION:		
7,159'	(SHOW WHETHER DF, KT, GK, E10.)	7/31/200		25 days		
	PPOPO	SED CASING AL	ND CEMENTING PROGRAM			
24.	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH		ANTITY, YIELD, AND SLURRY WEIGHT		
SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT FER FOOT	SETTING DEL TIT				
12-1/4"	9-5/8" J-55 ST 36#	1,000	see Drilling Plan			
7-7/8"	5-1/2" N-80 LT 17#	8,000	see Drilling Plan			
				<u> </u>		
25.		ATTA	CHMENTS	URIGINAL		
VERIFY THE FO	LLOWING ARE ATTACHED IN ACCORDANCE WITH TH	E UTAH OIL AND GAS C	ONSERVATION GENERAL RULES:	CONTIDENTIAL		
WELL PI	.AT OR MAP PREPARED BY LICENSED SURVEYOR OF	RENGINEER	COMPLETE DRILLING PLAN	CURIDENTAL		
			FORM 5, IF OPERATOR IS PE	ERSON OR COMPANY OTHER THAN THE LEASE OWNER		
EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER  FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER.						
			A t for Date	es Canada Basauroas (USA), Inc		
NAME (PLEASE	PRINT) Don Hamilton		TITLE Agent for Peti	o-Canada Resources (USA), Inc.		
SIGNATURE	Don Hamilton		DATE 6/13/2006			
(This space for St	ate use only)					
		Approv	ed by the	RECEIVED		
	ilana zuna					
API NUMBER AS		ate:	20.001.00	JUN 1 6 2006		
	_	JO AK	DIV.	OF OIL, GAS & MIRTHS		
(11/2001)	B	Topic T.	ons on Refere sine)	OF ORDER STORE COMMENTS		

# T12S, R12E, S.L.B.&M.



## LEGEND:

\_ = 90' SYMBOL

= PROPOSED WELL HEAD.

- SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83)
LATITUDE = 39°47'40.03" (39.794453)
LONGITUDE = 110°32'49.15" (110.546986)
(AUTONOMOUS NAD 27)
LATITUDE = 39°47'40.16" (39.794489)
LONGITUDE = 110°32'46.58" (110.546272)

# PETRO-CANADA RESOURCES (USA), INC.

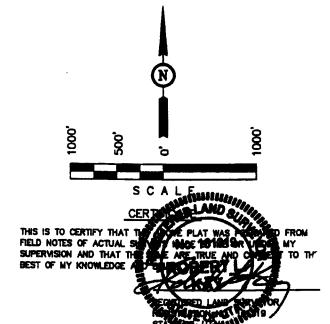
Well location, BRYNER #11-21, located as shown in the NE 1/4 NW 1/4 of Section 11, T12S, R12E, S.L.B.&M., Carbon County, Utah.

#### BASIS OF ELEVATION

SPOT ELEVATION LOCATED IN THE NW 1/4 OF SECTION 11, T12S, R12E, S.L.B.&M. TAKEN FROM THE MINNIE MAUD CREEK EAST, QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7135 FEET.

#### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



Revised: 6-9-06

# Untah Engineering & Land Surveying 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (435) 789-1017

SCALE 1" = 1000'		DATE SURVEYED: 5-25-06	DATE DRAWN: 6-5-06
PARTY M.A. S.D.	K.G.	REFERENCES G.L.O. PLA	\T
WEATHER WARM		FILE PETRO-C RESOURCE	ANADA ES (USA, INC.)



#### CANADA Petro-Canada Resources (USA) Inc.

July 12, 2006

VIA UPS EXPRESS MAIL

Ms. Diana Whitney State of Utah Division of Oil, Gas and Mining P. O. Box 145801 Salt Lake City, Utah 84114-5801

Re:

Request for Exception Location

Bryner 11-21 well

NENW of Section 11, T12S, R12E

877' FNL, 2312' FWL Carbon County, Utah

Dear Ms. Whitney:

Pursuant to R649-3-2 of the State of Utah, Division of Oil, Gas and Mining rules, Petro-Canada Resources (USA) Inc hereby requests administrative approval of a location exception for the referenced wellbore. The well location is being moved out of a legal location due to topography. The APD application for this well was previously submitted to you by Don Hamilton on our behalf.

A plat showing the proposed well location with the 460' radius line as well as the legal location window is attached. The only owner within a 460' radius of the proposed well location is CDX Gas. Inc., and I have also enclosed a waiver from CDX as to this location. This area is not subject to any order of the board establishing oil or gas well drilling units.

If you have any questions or need additional information, please call me at 303-350-1231.

Very truly yours,

PETRO-CANADA RESOURCES (USA) INC.

Carlo Kangla

Carla Konopka Regional Landman

Attachments

RECEIVED
JUL 1 3 2006

DIV. OF OIL, GAS & MINING



# CANADA Petro-Canada Resources (USA) Inc.

July 6, 2006

CDX Gas, LLC Attn: Mr. Gill Smith 5485 Belt Line Road, Suite 280 Dallas, TX 75254

Re: Request for Exception Location

Bryner 11-21 well

NENW of Section 11, T12S, R12E

877' FNL, 2312' FWL Carbon County, Utah

Dear Mr. Smith:

Pursuant to R649-3-2 of the State of Utah, Division of Oil, Gas and Mining rules, Petro-Canada Resources (USA) Inc has filed an application with the State of Utah, Division of Oil, Gas and Mining requesting approval of a location exception for the referenced wellbore. The well location is being moved out of a legal location due to topography. A plat showing the proposed well location, the 460' notice line and the legal location window is attached.

Petro-Canada requests that you waive your right to object to this location exception by signing a copy of this letter in the space provided below. If you have any questions or need additional information, please call me at 303-350-1231.

Very truly yours,

PETRO-CANADA RESOURCES (USA) INC.

ala Karapka

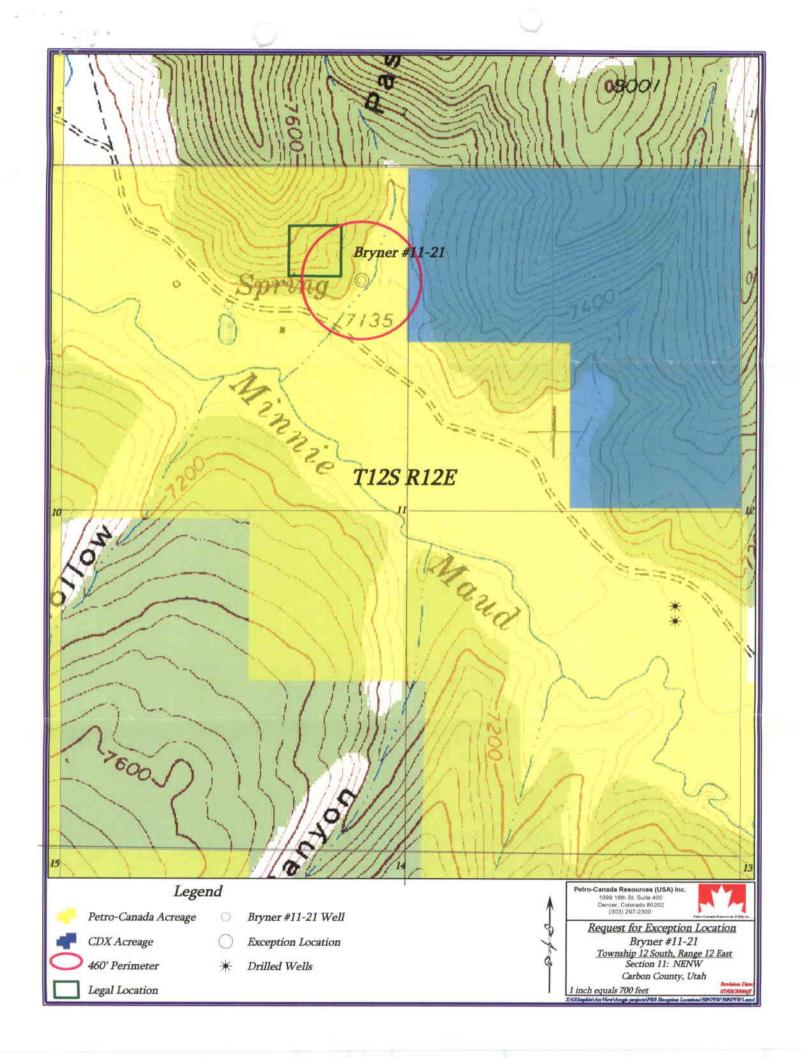
Carla Konopka Regional Landman

**Attachments** 

CDX Gas, Inc.

Name: 6/bert A.

Title: V.cc President





300 E. Mineral Ave., Suite 10 Littleton, CO 80122-2631 303/781-8211 303/781-1167 Fax

June 13, 2006

Mrs. Diana Whitney State of Utah Division of Oil Gas and Mining P.O. Box 145801 Salt Lake City, Utah 84114-5801

RE: Application for Permit to Drill - Petro-Canada Resources (USA), Inc. Bryner 11-21 – 877' FNL & 2,312' FWL, NE/4 NW/4
Section 11, T12S, R12E, SLB&M, Carbon County, Utah

Dear Mrs. Whitney:

On behalf of Petro-Canada Resources (USA), Inc. (Petro-Canada), Buys & Associates, Inc. respectfully submits the enclosed original and one copy of the Application for Permit to Drill (APD) for the above referenced fee surface and mineral vertical well. A request for exception to spacing (R649-3-2) is hereby requested based on topography since the well is located less than 460' of the drilling unit boundary. Petro-Canada and CDX Gas, LLC is the only owner and operator within 460' of the proposed well. Approval of the exception location is pending at this time from CDX Gas, LLC. Included with the APD is the following supplemental information:

Exhibit "A" - Survey plats, layouts and photos of the proposed well site;

Exhibit "B" - Proposed location maps with access corridor;

Exhibit "C" - Bryner Surface Use Agreements;

Exhibit "D" - Drilling Plan;

Exhibit "E" - Surface Use Plan;

Exhibit "F" - Typical BOP and Choke Manifold diagram.

Please accept this letter as Petro-Canada's, written request for confidential treatment of all information contained in and pertaining to this application.

Thank you very much for your timely consideration of this application. Please feel free to contact myself or Carla Konopka of Petro-Canada at 303-350-1231 if you have any questions or need additional information.

Sincerely,

Don Hamilton

Agent for Petro-Canada

cc: Alan Vrooman, Petro-Canada Carla Konopka, Petro-Canada RECEIVED

JUN 1 6 2006

DIV. OF OIL, GAS & MINING

ORIGINAL

CONFIDENTIAL

# **DRILLING PLAN**

# APPROVAL OF OPERATIONS

#### **Attachment for Permit to Drill**

Name of Operator: Petro-Canada Resources (USA)

Address: 1099 – 18<sup>th</sup> Street, Suite 400

Denver, CO 80202

Well Location: Bryner 11-21

877' FNL & 2,312' FWL, NE/4 NW

Section 21, T12S, R12E Carbon County, UT

1. GEOLOGIC SURFACE FORMATION Green River

# 2 & 3.ESTIMATED DEPTHS OF IMPORTANT GEOLOGIC MARKERS AND FORMATIONS EXPECTED TO CONTAIN WATER, OIL AND GAS OR MINERALS

<u>Formation</u>	<u>Depth</u>		
Green River	Surface		
Wasatch	1,100'		
Price River	3,700' *		
Castlegate	5,500' *		
Blackhawk	5,600' *		
Starpoint	6,300' *		
Mancos	6,600' *		
TD	8,000'		

<sup>\*</sup> PROSPECTIVE PAY

#### 4. PROPOSED CASING PROGRAM

All casing used to drill this well will be new casing.

Type	Size	Weight	Grade	Conn.	Top	<b>Bottom</b>	<u>Hole</u>
Surface	9.625"	36.0 ppf	J-55	STC	0'	1,000°	12-1/4"
Production	5.5"	17.0 ppf	N-80	LTC	0'	8,000°	7-7/8"

#### **DRILLING PLAN**

#### APPROVAL OF OPERATIONS

# 5. OPERATOR'S MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL

Surface hole: No BOPE will be utilized.

<u>Production hole</u>: Prior to drilling out the surface casing shoe, 3,000 psi or greater BOP equipment will be installed. The pipe rams will be operated at least once per day from surface casing depth to total depth. The blind rams will be tested once per day from surface casing depth to total depth if operations permit.

A diagram of the planned BOP equipment for normal drilling operations in this area is attached. As denoted there will be two valves and one check valve on the kill line, two valves on the choke line, and two adjustable chokes on the manifold system. The BOP "stack" will consist of two BOP rams (1 pipe, 1 blind) and one annular type preventer, all rated to a minimum of 3,000 psi working pressure.

The BOP equipment will be pressure tested prior to drilling below the surface casing shoe. All test pressures will be maintained for fifteen (15) minutes without any significant pressure decrease. Clear water will be circulated into the BOP stack and lines prior to pressure testing. The BLM and the state of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests.

#### 6. MUD SYSTEMS

Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kick" will be available at the well site.

<u>Interval</u>	Mud Weight (ppg)	<u>Viscosity</u>	Fluid Loss	<u>Remarks</u>
0 – 40'	8.3 - 8.6	27-40		Native Spud Mud
40' - 1,000'	8.3 – 8.6	27-40	15 cc or less	Native/Gel/Lime
1,000' - TD	8.6 – 9.5	38-46	15 cc or less	LSND/DAP

#### 7. BLOOIE LINE

- An automatic igniter will not be installed on blooie line. The blooie will have a constant ignition source.
- A "target tee" connection will be installed on blooie line for 90° change of directions for abrasion resistance.
- "Target tee" connections will be a minimum of 50' from wellhead.
- The blooie line discharge will be a minimum of 100' from the wellhead.

#### 8. AUXILIARY EQUIPMENT TO BE USED

- Upper Kelly cock; lower Kelly cock will be installed while drilling
- Inside BOP or stab-in valve (available on the rig floor)
- Safety valve(s) and subs to fit all string connections in use
- Mud monitoring will be visually observed

#### 9. TESTING, LOGGING, AND CORING PROGRAMS TO BE FOLLOWED

Cores Rotary side wall coring is anticipated in selected intervals and based on hole conditions.

Testing None anticipated;

Sampling 10' samples; surface casing to TD

Preserve samples all show intervals

Surveys Run every 1,000' and on trips

Logging DIL-GR-SP, FDC-CNL-GR-Caliper-Pe-Microlog, Sonic-GR, all TD to base of surface casing, GR through

surface casing.

# 10. ANTICIPATED ABNORMAL PRESSURES OR TEMPERATURES EXPECTED

- No abnormal temperature or pressures are anticipated.
- The formations to be penetrated do not contain known H2S gas.

#### **DRILLING PLAN**

#### APPROVAL OF OPERATIONS

# 11. WATER SUPPLY

- No water pipelines will be laid for this well.
- · No water well will be drilled for this well.
- Drilling water for this will be hauled on the road(s) shown in Exhibit B
- Water to be used for drilling will be obtained through a direct purchase from Bill Barrett Corporation out of Nine Mile Creek at the existing Harmon Canyon diversion.
- Water Permit # 90-1842 (T76109)

#### 12. CEMENT SYSTEMS

Surface Casing: 240 sacks Light Premium with additives mixed;

Weight: 12.7 ppg Yield: 1.85 cu.ft/sk

180 sacks Premium cement with additives mixed;

Weight: 15.7 ppg Yield: 1.16 cu.ft/sk

Cement will be circulated to surface with 100% excess

Production Casing: 440 sacks Premium Lite High Strength cement with additives mixed;

Weight: 13.5 ppg Yield: 2.20 cu.ft/sk

Top of cement to be determined by log and sample evaluation; estimated TOC 3,000'.

Volume is log caliper +10%

# 13. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS

Starting Date: July 31, 2006

Duration: 25 days, drilling and 30 days completion

# EXHIBIT "E" Multipoint Surface Use Plan

Attached to UDOGM Form 3 Petro-Canada Resources (USA), Inc Bryner 11-21 877' FNL & 2,312' FWL, NE/4 NW Section 11, T12S, R12E, SLB&M, Carbon County, Utah

The dirt contractor will be provided with an approved copy of this document prior to initiating construction.

### 1. Existing Roads

- a. The proposed access road will utilize the existing gravel-surfaced Minnie Maud Canyon Access Road under Carbon County Road Department maintenance (See Exhibit "B") in which approval has been received with stipulations.
- b. The existing county road will be upgraded consistent with Carbon County Road Department specifications and include improving cattleguards, gravelling and dust suppression, if necessary.
- c. We do not plan to change, alter or improve upon any other existing state or county roads.
- d. All existing roads will be maintained and kept in good repair during all phases of operation.
- e. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.
- f. Since no improvements are anticipated to any State, County, or BLM access roads no topsoil striping will occur.

#### 2. Planned Access Roads

- a. From the existing Minnie Maud access road an access is proposed trending north approximately 300' to the proposed well site. The access consists of entirely new disturbance and crosses no significant drainages.
- b. A road design plan is not anticipated at this time.

- c. The proposed access road will consist of a 24' travel surface within a 30' disturbed area across Bryner surface.
- d. DOGM approval to construct and utilize the proposed access road is requested with this application.
- e. A maximum grade of 13% will be maintained throughout the project with no major cuts and fills anticipated.
- f. No turnouts are proposed since the access road is only 300' long and adequate site distance exists in all directions.
- g. No low water crossings and one 18" culvert is anticipated. Adequate drainage structures will be incorporated into the remainder of the road.
- h. No surfacing material will come from federal or State lands.
- i. No gates or cattle guards are anticipated at this time.
- j. Surface disturbance and vehicular travel will be limited to the approved location access road.
- k. The operator will be responsible for all maintenance of the access road including drainage structures.

# 3. Location of Existing Wells

a. See Exhibit "B". There are no proposed and no existing well within a one mile radius of the proposed location.

# 4. Location of Existing and/or Proposed Facilities

- a. If the well is deemed productive a sundry notice reflecting the production site layout will be submitted for approval.
- b. Rehabilitation of all pad areas not used for production facilities will be made in accordance with landowner stipulations.

# 5. Location and Type of Water Supply

a. The location and type of water supply has been addressed as #11 within Exhibit "D". (Drilling Plan).

#### 6. Source of Construction Materials

a. Any necessary construction materials needed will be obtained locally from a private source and hauled to the location on existing roads.

# 7. Methods for handling waste disposal

- a. A small reserve pit will be constructed with a minimum of one-half the total depth below the original ground surface on the lowest point within the pit. The pit will be lined with a synthetic liner. Three sides of the reserve pit will be fenced within 24 hours after completion of construction and the fourth side within 24 hours after drilling operations cease with four strands of barbed wire, or woven wire topped with barbed wire to a height of not less than four feet. The fence will be kept in good repair while the pit is drying.
- b. Following drilling, the liquid waste will be evaporated from the pit and the pit backfilled and returned to natural grade. No liquid hydrocarbons will be discharged to the reserve pit or location.
- c. In the event fluids are produced, any oil will be retained in tanks until sold and any water produced will be retained until its quality can be determined. The quality and quantity of the water will determine the method of disposal.
- d. Trash will be contained in a portable metal container and will be hauled from location periodically and disposed of at an approved disposal site. Chemical toilets will be placed on location and sewage will be disposed of at an appropriate disposal site.

# 8. Ancillary Facilities

a. We anticipate no need for ancillary facilities with the exception of trailers to be located on the drill site.

# 9. Well-site Layout

- a. Available topsoil will be removed from the location and stockpiled. The location of the rig, reserve and blooie pits, and drilling support equipment will be located as shown on Exhibit "A", Figure 1 (Location Layout).
- b. A blooie pit will be located 100' from the drill hole. A line will be placed on the

surface from the center hole to the blooie pit. The blooie pit will not be lined, but will be fenced on four sides to protect livestock/wildlife.

- c. Access to the well pad will be as shown on the location layout.
- d. Natural runoff will be diverted around the well pad as shown on the location layout.

#### 10. Plans for Restoration of Surface

- a. All surface areas not required for producing operations will be graded to as near original condition as possible and contoured to maintain possible erosion to a minimum.
- b. Available topsoil will be stockpiled and will be evenly distributed over the disturbed areas and the area will be reseeded as prescribed by the landowner.
- c. Pits and any other area that would present a hazard to wildlife or livestock will be fenced off when the rig is released and removed.
- d. Any oil accumulation on the pit will be removed or overhead flagged as dictated by then existing conditions.
- e. Rehabilitation will commence following completion of the well. Holes will be filled immediately upon release of the drilling rig from the location. If the well-site is to be abandoned, all disturbed areas will be recontoured to the natural contour as is possible.

# 11. Surface Ownership

a. The well-site and access road will be constructed on lands owned by Lynn P. Bryner & Jacquelyn Oman. Jacquelyn Oman is the surface representative and can be reached at 889 West 760 North, Price, Utah 84501. Her home phone number is 435-637-3331 and her mobile phone number is 435-820-8436. A surface use agreement has previously been negotiated and is included in this application as Exhibit "C". The operator shall contact the landowner and the Division of Oil, Gas and Mining 48 hours prior to beginning construction activities.

#### 12. Other Information:

- a. The primary surface use is wildlife habitat and grazing. The nearest dwelling is the Oman cabin approximately 850' west of the proposed location. The nearest live water is in Minnie Maud Creek approximately 1,000' southwest.
- b. If there is snow on the ground when construction begins, it will be removed before the

soil is disturbed, and piled downhill from the topsoil stockpile location.

- c. The back-slope and fore-slope will be constructed no steeper than 3:1.
- d. All equipment and vehicles will be confined to the access road and well pad.
- e. A complete copy of the approved Application for Permit to Drill (APD) including conditions and stipulations and the surface use agreement shall be on the well-site during construction and drilling operations.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the Division of Oil, Gas & Mining.

# 13. Company Representative

Alan Vrooman Petro-Canada Resources (USA) Inc. 1099 18th Street, Suite 400, Denver, Colorado 80202 (303) 297-2100

#### Company Agent

Don Hamilton
Buys & Associates, Inc
2580 Creekview Road, Moab, Utah 84532
435-718-2018

#### 14. Certification

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed by Petro-Canada Resources (USA) Inc. and its subcontractors in conformity with this plan and the terms and conditions under which it is approved.

June 13, 2006
Date

Don Hamilton

Agent for Petro-Canada Resources (USA), Inc.

# SURFACE DAMAGE AND RELEASE AGREEMENT

This Surface Damage and Release Agreement ("Agreement") is made and entered into this 11th day of April, 2006, by and between Lynn P. Bryner, a married man dealing in his sole and separate property ("Owner"), and Land Group, ("Operator"); sometimes referred to each as a "Party," or collectively as the "Parties."

#### WITNESSETH:

For and in consideration of the covenants and agreements contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

OWNERSHIP. Owner is the surface owner of certain lands located in Carbon County, Utah as more specifically described on Exhibit "A" attached hereto ("Lands"):

Operator owns a working or operating interest in a valid oil and gas lease or leases covering all or portions of the Lands or lands pooled or included in a spacing unit therewith (each a "Lease," collectively, the "Leases").

- OPERATOR'S OIL AND GAS OPERATIONS ON THE LANDS. Operator may drill or cause to be drilled an oil and/or gas well or wells on the Lands ("Wells"). In order for Operator to drill, construct, complete, produce, maintain, and operate the Wells and all facilities associated therewith, including, but not limited to, access roads ("Access Roads"), pipelines, flow lines, separators, tank batteries, electric lines and any other facilities or property necessary for Operator to conduct operations on the Wells (each a "Facility," collectively, the "Facilities"), it is necessary that Operator enter and utilize a portion of the surface of the Lands. The Parties enter into this Agreement to evidence their entire agreement regarding the payment of surface damages, entry, surface use, and any other matters relating to Operator's use of the Lands.
- LOCATION. The approximate location of the Wells will be within the drilling windows allocated by the Utah Division of Oil, Gas and Mining ("DGOM"). Lessee will consult with Lessor regarding the actual location of the Access Roads to the Well site and certain other Facilities to be constructed on the Lands, none of which will unduly interfere with Owner's existing use of the surface estate. Any material changes to such locations may be made by Operator with the consent of Owner, which will not be unreasonably withheld, but will not unduly interfere with Owner's existing use of the surface estate. Operator agrees not to use any more of the surface of the Lands than is reasonably necessary to conduct its operations.
- CONDUCT OF OPERATIONS. Operator's operations on the Lands will be conducted pursuant to the terms of the Leases, this Agreement, and the rules and regulations of the "DOGM.
- COMPENSATION AMOUNT. Operator will pay Owner the sum of one thousand dollars (\$1,000.00) per Well location and the associated Facilities prior to the commencement of actual drilling operations for each such well. Additionally, Operator shall pay to Owner an access fee of ten dollars (\$10.00) per rod for the use of both existing and newly constructed roads utilized by Operator on the Lands and shall pay ten dollars (\$10.00) per rod for a pipeline right-of-way within which Operator may construct its pipelines, provided; however, that to the extent such pipelines are installed in any road right of way utilized and paid for by Operator, the pipeline right-of-way shall be paid at five dollars (\$5.00) per rod. Operator shall provide Owner with a plat showing the location and length of all roads and pipelines promptly after their first use, construction or improvement. Such payments are hereby acknowledged by Owner as full and final consideration for Operator's use of the Lands for the purposes enumerated in this Agreement and for any and all damages caused or created by reason of the reasonable and customary ingress, egress, rights-of-way, drilling, completion, production and maintenance operations associated with the Wells and Facilities. Such damages will include, without limitation, damage to growing crops, cropland, the removal, transportation and care of livestock, re-seeding, construction and use of Access Roads and the preparation and use of the Well site areas.

#### ADDITIONAL SURFACE USE PROVISIONS, ACCESS ROADS, FENCES AND FACILITIES. With respect to its operations on the Lands, Operator will comply with the following provisions:

#### A. Access Roads:

- Access Roads will not exceed 20 feet in width. (i)
- Operator will use its best efforts to insure that all of its vehicles accessing the Lands on its behalf remain on the Access Roads and in any event will promptly repair any damage to the lands due to vehicles operating off the Access Roads.
  - (iii) Operator agrees to back-slope all Access Roads.
- (iv) Operator will provide Owner with a minimum of 10 days prior written notice before restoring the surface of all Access Roads to be permanently abandoned by Operator. No later than 10 days following receipt of such notice, Owner may elect, in writing, not to have such Access Roads abandoned by Operator. In such event, Operator will have no liability under this Agreement, the Lease, or otherwise, to restore the surface of the Lands utilized as Access Roads. Failure to timely respond will be deemed as Owner's election that Operator proceed with the abandonment of the Access Roads and the restoration of the surface thereof.
- Operator will stockpile and save any topsoil removed while constructing Access Roads for rehabilitation or re-seeding as reasonably directed by Owner.
- Operator will maintain all Access Roads in good repair and condition and will use its best efforts to control dust from the Access Roads utilized by Operator.
- All Access Roads and the Well site will be posted with proper signs, including "Private Property" and "No Trespassing" or similar signs.
- Operator will provide livestock guards and crossings along all Access Roads as Owner may reasonably require. Such livestock guards will be kept clean and in good repair. Operator will keep Owner's gates closed at all times.

#### B. Surface Restoration:

Upon permanent cessation of Operator's operations on the Lands, all areas thereof occupied or utilized by Operator will be restored by Operator to their original contour as nearly as is reasonably practicable, and re-seeded; provided however, that Operator's intent to abandon any Access Roads will be subject to the provisions of Paragraph 6(A)(iv) herein.

#### C. Other.

801-816-99<del>4</del>9

- Operator will install culverts on the Lands that may be necessary to maintain present drainage and irrigation otherwise affected by its operations on the Lands.
- If by reason of the activities of the Operator, including, but not limited to, drilling, completing, equipping, and operating of the Wells, there is unanticipated damage to personal property of the Owner, including, but not limited to, irrigation wells, fences, culverts, bridges, pipelines, ditches, or irrigation systems, Operator will repair or replace such items after consultation with and to the reasonable satisfaction of the Owner. Owner will notify Operator of any items damaged after the Well's construction and Operator will repair or replace such items after consultation with the Owner within 15 days of occurrence.
  - (iii) Operator agrees that all trash, refuse pipe, equipment, liquids, chemicals, or other

5.1.06

Page 2 of 5

materials brought on the Lands that are not necessary for continued operations of the Wells will be timely removed and disposed away from the Lands after the completion of the Wells. No such items will be burned or buried on the Lands.

7. **DEFAULT AND RIGHT TO CURE.** In the event of alleged default by Operator in the payment of any of the sums hereinabove provided to be made, in obligations to be performed, or any other terms, conditions or covenants of this Agreement, Owner will notify Operator, by certified mail, return receipt requested, of the alleged default. Operator will have 30 business days from receipt of the written notification in which to cure, dispute or otherwise respond to the notification before Owner may allege default.

Except as otherwise agreed in writing, no waiver by Owner of any breach by the Operator of any of its obligations, agreements, or covenants hereunder will be deemed to be a waiver of any subsequent or continuing breach of the same, nor will any forbearance by Owner to seek a remedy for any breach by the Operator be deemed to be a waiver by Owner of its rights or remedies with respect to such breach; however, in no event will Operator be liable for additional payment for reasonably anticipated damages to the Lands caused by Operator's oil and gas operations, and in no event will Operator be liable for consequential damages.

- 8. <u>INDEMNITY/RELEASE</u>. Operator agrees to indemnify and hold Owner harmless from any and all claims, damages and causes of action arising out of and caused by Operator's operations on the Lands that may be asserted by any of Operator's agents, employees, subcontractors, contractors or persons entering upon the Lands at the request of Operator.
- 9. <u>NOTICE FOR ADDITIONAL OPERATIONS</u>. Operator will comply with "DOGM rules and regulations requiring that advance notice be provided to Owner for subsequent operations on the Wells, including, but not limited to, reworking operations thereto.
- 10. NOTICES. Notice by either Party will be promptly given, orally if possible (with the exception of the default notice described in Paragraph 7), with subsequent written confirmation sent by United States mail, postage prepaid and addressed to either Party at the address as designated below; or to such other place as either Party may from time to time designate by notice to the other:

Owner
Lynn P. Bryner
1885 West 1525 North
St George, Utah 84770
(435) 628-5216

Operator
LandGroup
2825 East cottonwood Parkway, Suite #500
Salt Lake City, Utah 84121

- Phone: BINDING EFFECT. The covenants and conditions herein contained and all of the provisions of this Agreement will inure to the benefit of and will be binding upon the Parties hereto, their respective heirs, representatives, successors or assigns. Owner agrees to contact any and all tenants of Lands or any other third parties utilizing the surface of the Lands that may be affected by Operator's activities on the Lands. It will be Owner's sole responsibility to advise such third parties of the existence of this Agreement and Operator's right to utilize the surface of the Lands pursuant to this Agreement for the payment of any consideration, if any, due such third party from Owner.
- 12. <u>CONFIDENTIALITY</u>. The Parties agree to keep the terms and conditions of this Agreement confidential and will not disclose such matters to any third party without the advance written consent of the other, or if ordered to do so in a legal proceeding. While the specific terms hereof are to remain confidential between the Parties, Operator may record a Memorandum of Agreement in Carbon County Utah disclosing only that the parties have entered into a Surface Damage Agreement covering the Lands. In the event said Memorandum of Agreement is placed of record, upon termination of this Agreement Operator shall file a notice that this Agreement has terminated.
- 13. ENTIRE AGREEMENT. This instrument contains the entire agreement between the Parties and may not be modified orally or in any other manner other than by agreement in writing signed by all Parties or their respective successors or assigns.

5.1.06

- 14. <u>TERM.</u> This Agreement will remain in full force and effect for so long as Operator has the right to conduct oil and gas operations on the Lands pursuant to the Leases; provided, however, that the termination of this Agreement will not relieve the Parties from their respective obligations or liabilities arising herein prior to such termination.
- 15. <u>COUNTERPARTS</u>. This Agreement may be executed by facsimile, in counterparts, each of which will be considered an original and enforceable against either Party.
- 16. GOVERNING LAW AND VENUE. This Agreement will be governed by, construed and enforced in accordance with the laws of Utah.
- 17. <u>SUCCESSORS</u>. This Agreement constitutes a covenant running with the Lands and will be binding upon and inure to the benefit of, and be enforceable by, the Parties and their respective successors, administrators, trustees, executors and assigns.
- 18. <u>AUTHORITY OF SIGNATORIES</u>. The signatories below declare, warrant and represent that they have the authority to enter into this Agreement on behalf of their respective principals, if any.
- 19. <u>ATTORNEY'S FEES AND COSTS</u>. The Parties agree that the prevailing Party in any action resulting from a substantial breach of this Agreement will be entitled to its reasonable attorney's fees and costs incurred therein.

IN WITNESS WHEREOF, the Parties have set their hands, the day and year first written above.

OPERA By: (	0				
OWNE By:	ER:	mm 7 Iryner	Br	g nu	,
Ву:	<u> </u>		**************************************		
Bv∙					

# EXHIBIT "A"

BRYNER LYNN P AND OMAN JACQUELYN 889 W 760 N PRICE, UTAH 84501-0000

COUNTY	TWN	RNG	SEC	DESCRIPTION	
CARBON	128	12E	3	LOT 1; SE4NE4. 86.47 AC AC	
CARBON	125	12E	9	S2, 320.00 AC	
CARBON	128	12E	11	NF4NW4: SF4NW4: SW4NF4: N2SF4	200 00 AC

511.0%

#### SURFACE DAMAGE AND RELEASE AGREEMENT

This Surface Damage and Release Agreement ("Agreement") is made and entered into this 11<sup>th</sup> day of April, 2006, by and between Alfred Dan Oman and Jacquelyn B. Oman as Trustees of the Alfred and Jacquelyn Oman Family Living Trust dated October 25, 2005 ("Owner"), and Land Group, ("Operator"); sometimes referred to each as a "Party," or collectively as the "Parties."

#### WITNESSETH:

For and in consideration of the covenants and agreements contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Owner is the surface owner of certain lands located in Carbon County, Utah as more specifically described on Exhibit "A" attached hereto ("Lands"):

Operator owns a working or operating interest in a valid oil and gas lease or leases covering all or portions of the Lands or lands pooled or included in a spacing unit therewith (each a "Lease," collectively, the "Leases").

- DPERATOR'S OIL AND GAS OPERATIONS ON THE LANDS. Operator may drill or cause to be drilled an oil and/or gas well or wells on the Lands ("Wells"). In order for Operator to drill, construct, complete, produce, maintain, and operate the Wells and all facilities associated therewith, including, but not limited to, access roads ("Access Roads"), pipelines, flow lines, separators, tank batteries, electric lines and any other facilities or property necessary for Operator to conduct operations on the Wells (each a "Facility," collectively, the "Facilities"), it is necessary that Operator enter and utilize a portion of the surface of the Lands. The Parties enter into this Agreement to evidence their entire agreement regarding the payment of surface damages, entry, surface use, and any other matters relating to Operator's use of the Lands.
- 3. LOCATION. The approximate location of the Wells will be within the drilling windows allocated by the Utah Division of Oil, Gas and Mining ("DGOM"). Lessee will consult with Lessor regarding the actual location of the Access Roads to the Well site and certain other Facilities to be constructed on the Lands, none of which will unduly interfere with Owner's existing use of the surface estate. Any material changes to such locations may be made by Operator with the consent of Owner, which will not be unreasonably withheld, but will not unduly interfere with Owner's existing use of the surface estate. Operator agrees not to use any more of the surface of the Lands than is reasonably necessary to conduct its operations.
- 4. <u>CONDUCT OF OPERATIONS</u>. Operator's operations on the Lands will be conducted pursuant to the terms of the Leases, this Agreement, and the rules and regulations of the "DOGM.
- (\$1,000.00) per Well location and the associated Facilities prior to the commencement of actual drilling operations for each such well. Additionally, Operator shall pay to Owner an access fee of ten dollars (\$10.00) per rod for the use of both existing and newly constructed roads utilized by Operator on the Lands and shall pay ten dollars (\$10.00) per rod for a pipeline right-of-way within which Operator may construct its pipelines, provided; however, that to the extent such pipelines are installed in any road right of way utilized and paid for by Operator, the pipeline right-of-way shall be paid at five dollars (\$5.00) per rod. Operator shall provide Owner with a plat showing the location and length of all roads and pipelines promptly after their first use, construction or improvement. Such payments are hereby acknowledged by Owner as full and final consideration for Operator's use of the Lands for the purposes enumerated in this Agreement and for any and all damages caused or created by reason of the reasonable and customary ingress, egress, rights-of-way, drilling, completion, production and maintenance operations associated with the Wells and Facilities. Such damages will include, without limitation, damage to growing crops, cropland, the removal, transportation and care of livestock, re-seeding, construction and use of Access Roads and the preparation and use of the Well site areas.

Page 1 of 5

# 6. <u>ADDITIONAL SURFACE USE PROVISIONS, ACCESS ROADS, FENCES AND FACILITIES.</u> With respect to its operations on the Lands, Operator will comply with the following provisions:

#### A. Access Roads:

- (i) Access Roads will not exceed 20 feet in width.
- (ii) Operator will use its best efforts to insure that all of its vehicles accessing the Lands on its behalf remain on the Access Roads and in any event will promptly repair any damage to the lands due to vehicles operating off the Access Roads.
  - (iii) Operator agrees to back-slope all Access Roads.
- (iv) Operator will provide Owner with a minimum of 10 days prior written notice before restoring the surface of all Access Roads to be permanently abandoned by Operator. No later than 10 days following receipt of such notice, Owner may elect, in writing, not to have such Access Roads abandoned by Operator. In such event, Operator will have no liability under this Agreement, the Lease, or otherwise, to restore the surface of the Lands utilized as Access Roads. Failure to timely respond will be deemed as Owner's election that Operator proceed with the abandonment of the Access Roads and the restoration of the surface thereof.
- (v) Operator will stockpile and save any topsoil removed while constructing Access Roads for rehabilitation or re-seeding as reasonably directed by Owner.
- (vi) Operator will maintain all Access Roads in good repair and condition and will use its best efforts to control dust from the Access Roads utilized by Operator.
- (vii) All Access Roads and the Well site will be posted with proper signs, including "Private Property" and "No Trespassing" or similar signs.
- (viii) Operator will provide livestock guards and crossings along all Access Roads as Owner may reasonably require. Such livestock guards will be kept clean and in good repair. Operator will keep Owner's gates closed at all times.

#### B. Surface Restoration:

Upon permanent cessation of Operator's operations on the Lands, all areas thereof occupied or utilized by Operator will be restored by Operator to their original contour as nearly as is reasonably practicable, and re-seeded; provided however, that Operator's intent to abandon any Access Roads will be subject to the provisions of Paragraph 6(A)(iv) herein.

#### C. Other.

- (i) Operator will install culverts on the Lands that may be necessary to maintain present drainage and irrigation otherwise affected by its operations on the Lands.
- (ii) If by reason of the activities of the Operator, including, but not limited to, drilling, completing, equipping, and operating of the Wells, there is unanticipated damage to personal property of the Owner, including, but not limited to, irrigation wells, fences, culverts, bridges, pipelines, ditches, or irrigation systems, Operator will repair or replace such items after consultation with and to the reasonable satisfaction of the Owner. Owner will notify Operator of any items damaged after the Well's construction and Operator will repair or replace such items after consultation with the Owner within 15 days of occurrence.
  - (iii) Operator agrees that all trash, refuse pipe, equipment, liquids, chemicals, or other

Page 2 of 5

materials brought on the Lands that are not necessary for continued operations of the Wells will be timely removed and disposed away from the Lands after the completion of the Wells. No such items will be burned or buried on the Lands.

7. **DEFAULT AND RIGHT TO CURE.** In the event of alleged default by Operator in the payment of any of the sums hereinabove provided to be made, in obligations to be performed, or any other terms, conditions or covenants of this Agreement, Owner will notify Operator, by certified mail, return receipt requested, of the alleged default. Operator will have 30 business days from receipt of the written notification in which to cure, dispute or otherwise respond to the notification before Owner may allege default.

Except as otherwise agreed in writing, no waiver by Owner of any breach by the Operator of any of its obligations, agreements, or covenants hereunder will be deemed to be a waiver of any subsequent or continuing breach of the same, nor will any forbearance by Owner to seek a remedy for any breach by the Operator be deemed to be a waiver by Owner of its rights or remedies with respect to such breach; however, in no event will Operator be liable for additional payment for reasonably anticipated damages to the Lands caused by Operator's oil and gas operations, and in no event will Operator be liable for consequential damages.

- 8. <u>INDEMNITY/RELEASE</u>. Operator agrees to indemnify and hold Owner harmless from any and all claims, damages and causes of action arising out of and caused by Operator's operations on the Lands that may be asserted by any of Operator's agents, employees, subcontractors, contractors or persons entering upon the Lands at the request of Operator.
- 9. <u>NOTICE FOR ADDITIONAL OPERATIONS</u>. Operator will comply with "DOGM rules and regulations requiring that advance notice be provided to Owner for subsequent operations on the Wells, including, but not limited to, reworking operations thereto.
- NOTICES. Notice by either Party will be promptly given, orally if possible (with the exception of the default notice described in Paragraph 7), with subsequent written confirmation sent by United States mail, postage prepaid and addressed to either Party at the address as designated below; or to such other place as either Party may from time to time designate by notice to the other:

Owner
Jackie Oman
889 West 760 North
Price, Utah 84501
(435) 637-3331

Operator
LandGroup
2825 East cottonwood Parkway, Suite #500
Salt Lake City, Utah 84121

- 11. Phone: <u>BINDING EFFECT</u>. The covenants and conditions herein contained and all of the provisions of this Agreement will inure to the benefit of and will be binding upon the Parties hereto, their respective heirs, representatives, successors or assigns. Owner agrees to contact any and all tenants of Lands or any other third parties utilizing the surface of the Lands that may be affected by Operator's activities on the Lands. It will be Owner's sole responsibility to advise such third parties of the existence of this Agreement and Operator's right to utilize the surface of the Lands pursuant to this Agreement for the payment of any consideration, if any, due such third party from Owner.
- CONFIDENTIALITY. The Parties agree to keep the terms and conditions of this Agreement confidential and will not disclose such matters to any third party without the advance written consent of the other, or if ordered to do so in a legal proceeding. While the specific terms hereof are to remain confidential between the Parties, Operator may record a Memorandum of Agreement in Carbon County Utah disclosing only that the parties have entered into a Surface Damage Agreement covering the Lands. In the event said Memorandum of Agreement is placed of record, upon termination of this Agreement Operator shall file a notice that this Agreement has terminated.
- 13. ENTIRE AGREEMENT. This instrument contains the entire agreement between the Parties and may not be modified orally or in any other manner other than by agreement in writing signed by all Parties or their respective successors or assigns.

Page 3 of 5

- 14. <u>TERM.</u> This Agreement will remain in full force and effect for so long as Operator has the right to conduct oil and gas operations on the Lands pursuant to the Leases; provided, however, that the termination of this Agreement will not relieve the Parties from their respective obligations or liabilities arising herein prior to such termination.
- 15. <u>COUNTERPARTS</u>. This Agreement may be executed by facsimile, in counterparts, each of which will be considered an original and enforceable against either Party.
- 16. GOVERNING LAW AND VENUE. This Agreement will be governed by, construed and enforced in accordance with the laws of Utah.
- 17. <u>SUCCESSORS.</u> This Agreement constitutes a covenant running with the Lands and will be binding upon and inure to the benefit of, and be enforceable by, the Parties and their respective successors, administrators, trustees, executors and assigns.
- 18. <u>AUTHORITY OF SIGNATORIES</u>. The signatories below declare, warrant and represent that they have the authority to enter into this Agreement on behalf of their respective principals, if any.
- 19. <u>ATTORNEY'S FEES AND COSTS</u>. The Parties agree that the prevailing Party in any action resulting from a substantial breach of this Agreement will be entitled to its reasonable attorney's fees and costs incurred therein.

IN WITNESS WHEREOF, the Parties have set their hands, the day and year first written above.

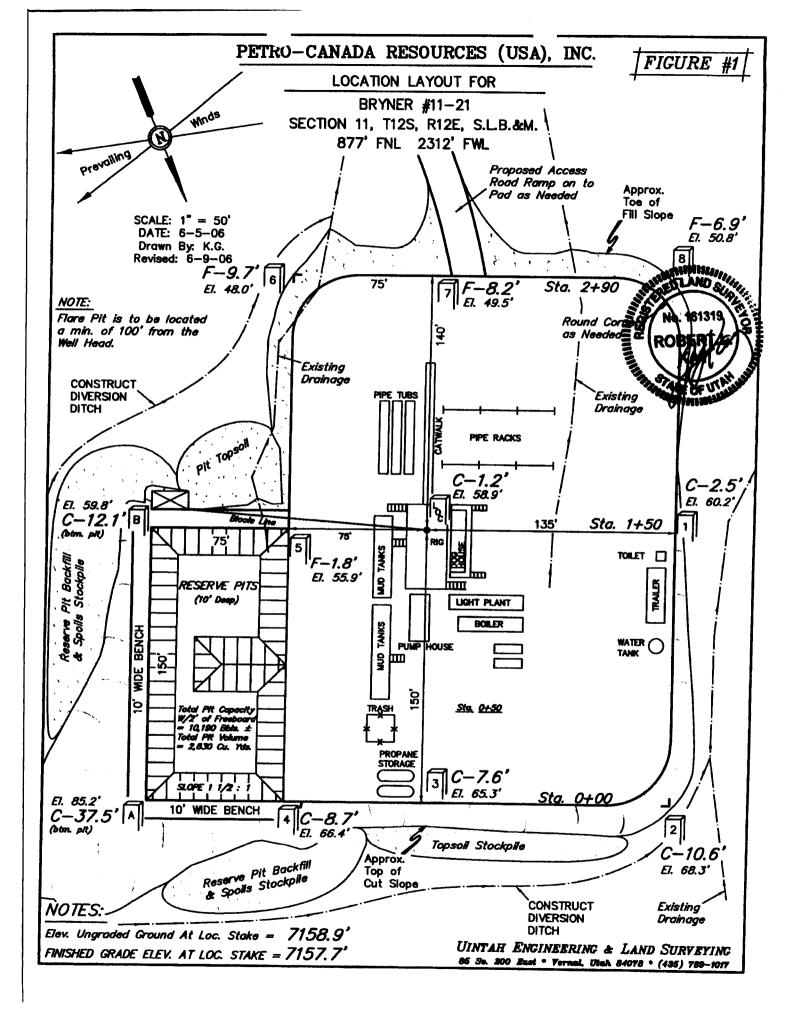
OPE	RATOR					
Ву:	_\	2		<u> </u>		-
owi	NER:					
Ву:	M	fun		an C	2m	an
Ву:	Go	egu	ilipi .	B. C	Omas	L

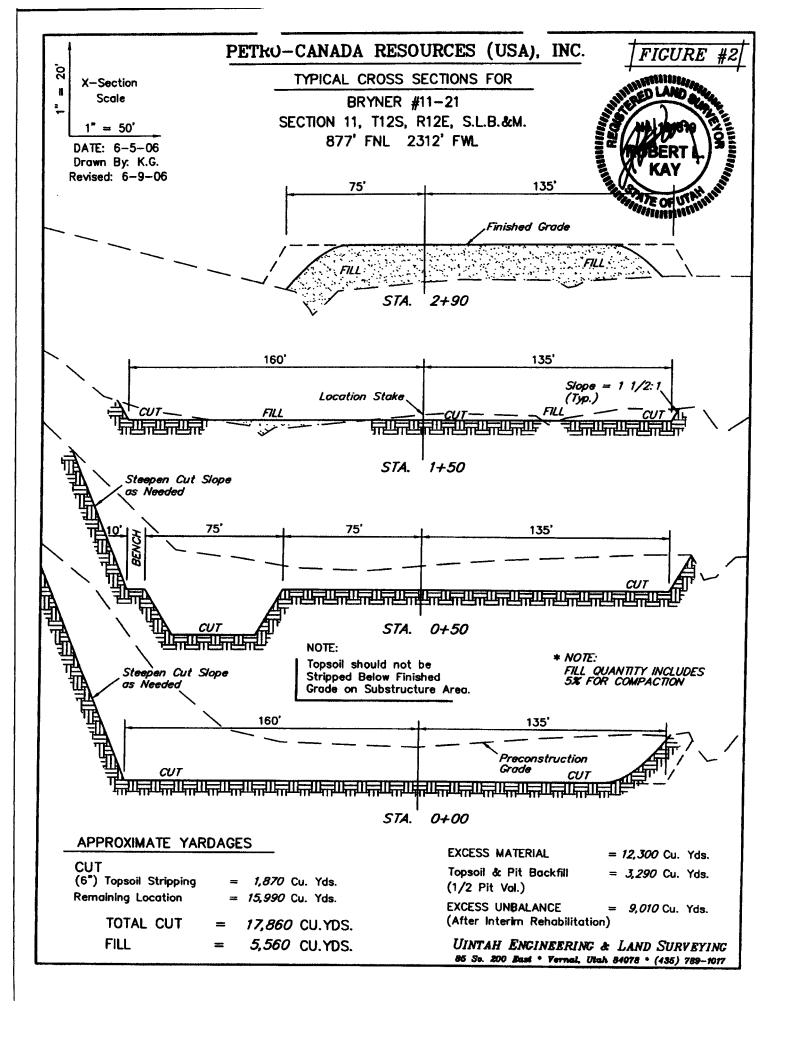
By:

#### EXHIBIT "A"

BRYNER LYNN P AND OMAN JACQUELYN 889 W 760 N PRICE, UTAH 84501-0000

COUNTY	TWN	RNG	<u>SEC</u>	DESCRIPTION
CARBON	128	12E	3	LOT 1; SE4NE4. 86.47 AC AC
CARBON	125	12E	9	S2, 320.00 AC
CARBON	128	12E	11	NE4NW4; SE4NW4; SW4NE4; N2SE4, 200.00 AC





# PETRO-CANADA RESOURCES (USA), INC. BRYNER #11-21 LOCATED IN CARBON COUNTY, UTAH

SECTION 11, T12S, R12E, S.L.B.&M.

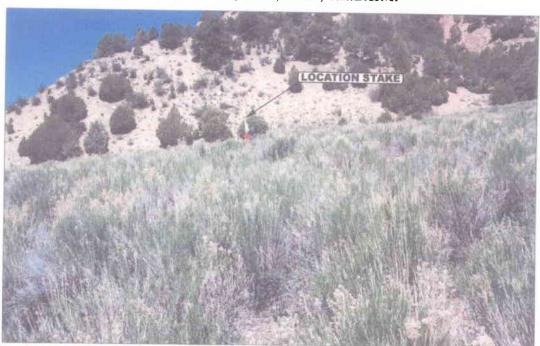


PHOTO: VIEW OF LOCATION STAKE

CAMERA ANGLE: NORTHERLY

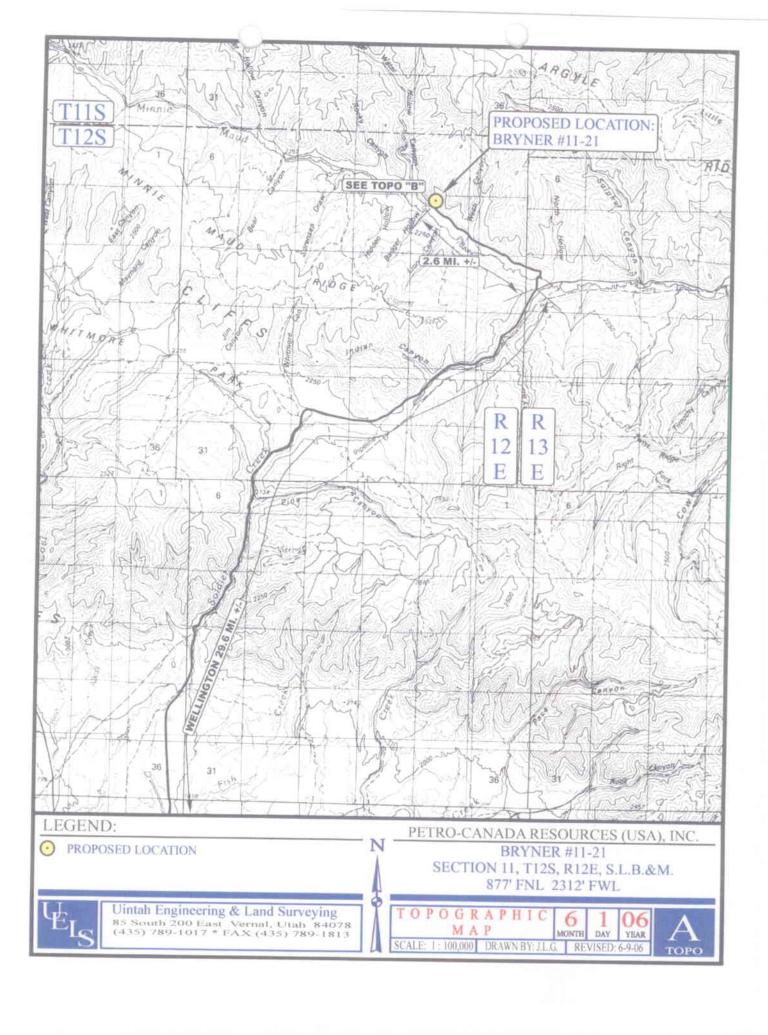


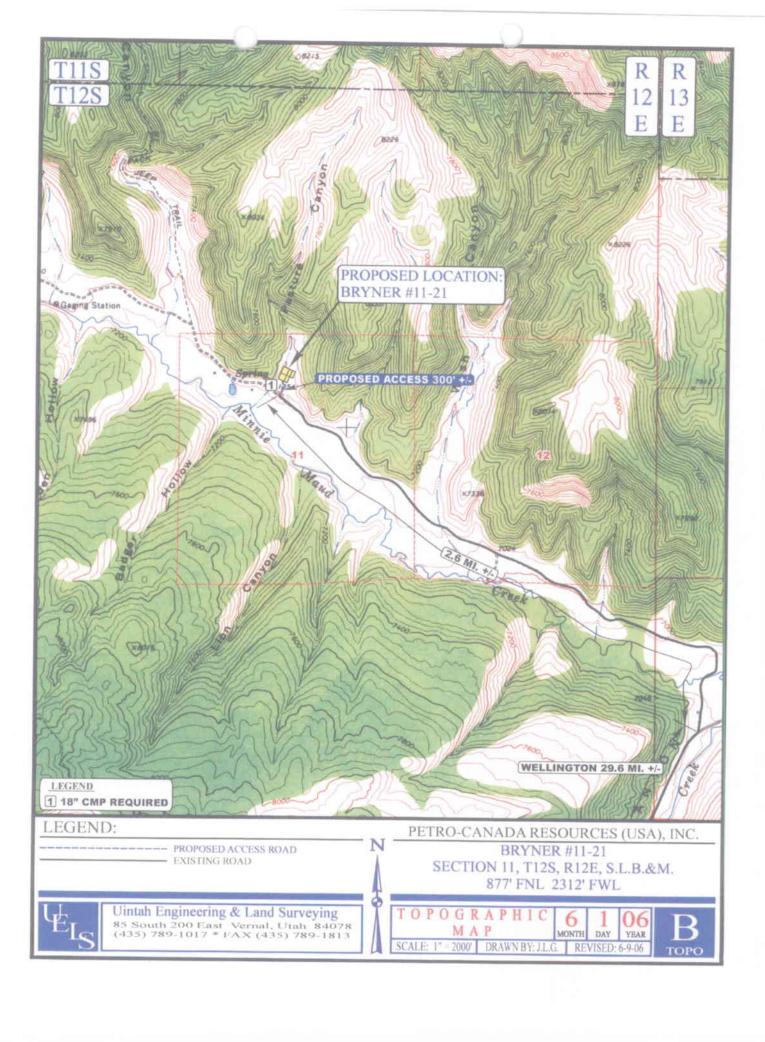
PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

**CAMERA ANGLE: NORTHWESTERLY** 



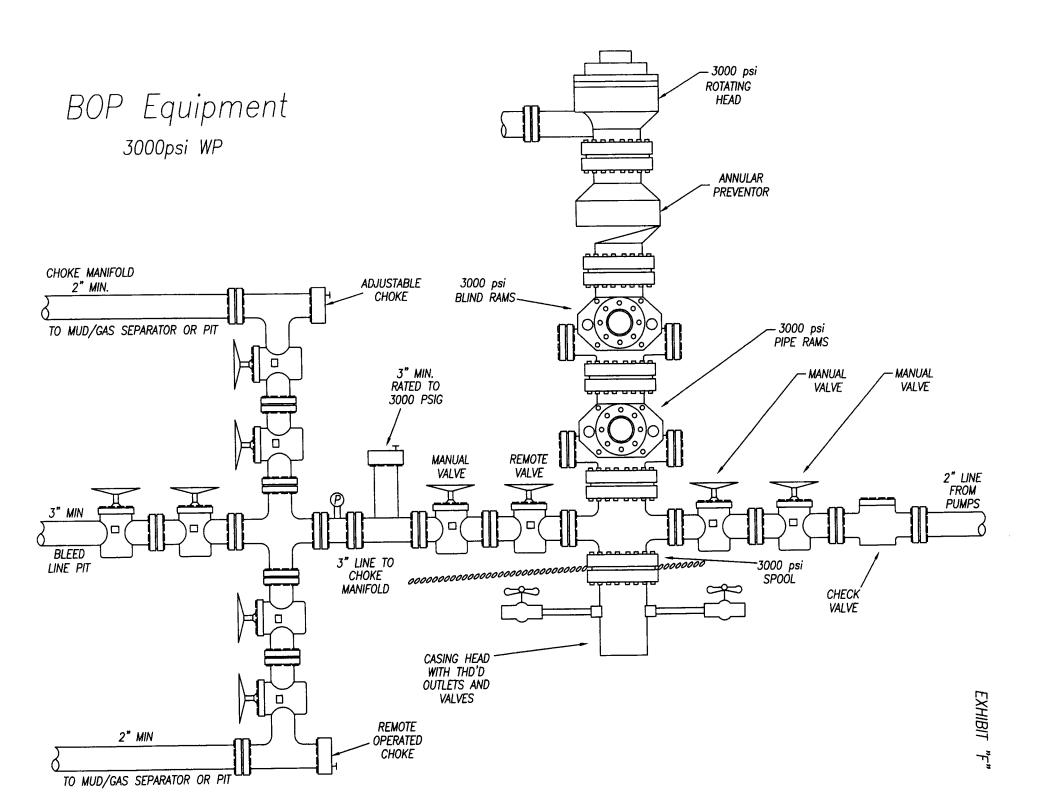
LOCATION PHOTOS		6 MONTH	1 DAY	06 YEAR	РНОТО
TAKEN BY: M.A.	DRAWN BY: J.L.(	i RE	VISED:	6-9-06	





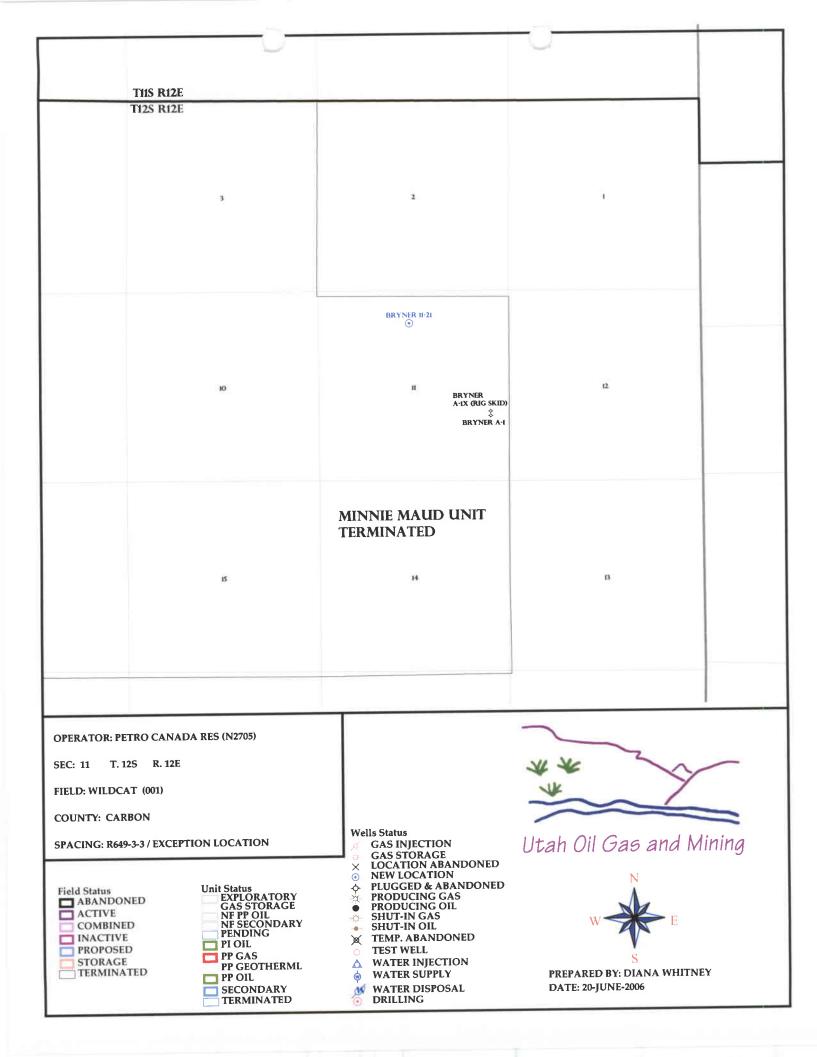
# PETRO-CANADA RESOURCES (USA), INC. BRYNER #11-21 SECTION 11, T12S, R12E, S.L.B.&M.

PROCEED IN AN EASTERLY DIRECTION FROM WELLINGTON UTAH APPROXIMATELY 2.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 27.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 2.6 MILES TO THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE NORTH; FOLLOW ROAD FLAGS IN A NORTHERLY DIRECTION APPROXIMATELY 300' MILES TO THE PROPOSED LOCATION.



# WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 06/16/2006	API NO. ASSIGNED:	43-007-31208
WELL NAME: BRYNER 11-21		
OPERATOR: PETRO-CANADA RESOURCES ( N2705 )	PHONE NUMBER: 435-65	0-1886
CONTACT: DON HAMILTON		
PROPOSED LOCATION:	INSPECT LOCATN BY:	/ /
NENW 11 120S 120E SURFACE: 0877 FNL 2312 FWL	Tech Review Init	ials Date
BOTTOM: 0877 FNL 2312 FWL	Engineering Du	CD 7/19/06
COUNTY: CARBON	Geology	
LATITUDE: 39.79478 LONGITUDE: -110.5462 UTM SURF EASTINGS: 538853 NORTHINGS: 44048	Surface	
FIELD NAME: WILDCAT ( 1		
LEASE TYPE: 4 - Fee		
LEASE NUMBER: FEE	PROPOSED FORMATION:	MNCS
SURFACE OWNER: 4 - Fee	COALBED METHANE WELL	? NO
Plat  Bond: Fed[] Ind[] Sta[] Fee[]  (No. 04127699  Potash (Y/N)  Oil Shale 190-5 (B) or 190-3 or 190-13  Water Permit  (No. 90-1842  RDCC Review (Y/N)  (Date: 07/05/2006  Fee Surf Agreement (Y/N)  Intent to Commingle (Y/N)	LOCATION AND SITING:  R649-2-3.  Unit: R649-3-2. General Siting: 460 From Qtr/Qtr & R649-3-3. Exception  Drilling Unit Board Cause No: Eff Date: Siting: R649-3-11. Directiona	920' Between Wells
STIPULATIONS:  1-Spacing Sh?  2-Statement  3-Cement st.p.	OF BASIS	



# DIVISION OF OIL, GAS AND MINING APPLICATION FOR PERMIT TO DRILL STATEMENT OF BASIS

OPERATOR: Petro-Canada Resources (USA), Inc.
WELL NAME & NUMBER: Bryner 11-21
<b>API NUMBER</b> : 43-007-31208
<b>LOCATION</b> : 1/4,1/4 <u>NENW</u> Sec: <u>11</u> TWP: <u>12 S</u> RNG: <u>12 E</u> <u>877</u> FNL <u>2312</u> FWL
Geology/Ground Water:
A well drilled at this location will likely spud into a permeable soil developed on Quaternary Alluvium covering the Tertiary age Lower Member of the Green River Formation. It is likely that considerable volumes of fresh water may be encountered in permeable Quaternary, Tertiary and Cretaceous-age Mesa Verde Group Mesozoic strata. The nearest mapping of the base of moderately saline ground water in the area implies that the base of moderately saline ground water is likely to be as much as 5,000' below the surface (this location is at the extreme edge of the mapped area at higher elevation and a few miles southwest of the Argyle Ridge). Numerous surface water rights have been filed, but there are no underground water right filings within a mile of the location. Drainage is to the southwest into nearby Minnie Maud Creek, which eventually flows into the Green River, via Nine Mile Creek. It is unlikely that the proposed casing and cementing program and the freshwater/gel drilling fluid system will adequately protect the shallow ground water resource from the LSND/DAP mud system to be used below 1000' if it is necessary to keep dissolved solids out of aquifers within the Colorado River Drainage. The surface casing will likely only protect the Green River Shale and a little bit of the Colton Formation. The prodigious column of
permeable sands in the Cretaceous are exposed during drilling below the surface casing.  Reviewer: Christopher J. Kierst  Date: 7/13/06
Surface:
On-site conducted July 6, 2006. In attendance: Bart Kettle (DOGM), Don Hamilton (Agent for Petro-Canada), Dan Oman, (Surface Owner), Jacquelyn Oman (Surface Owner). Invited but choosing not to attend Gayla Williams (Carbon County), Rex Sacco (Carbon County and Sandy Lehman (Carbon County).
Surface owner requested that culvert be installed at ditch crossing on access road so that water flow in no restricted.
DOGM requested that drainages be diverted away from location and that berms remain between the wash and well
pad on the northwest corner.
Reviewer: Bart T Kettle Date: 07/06/2006

# **Conditions of Approval/Application for Permit to Drill:**

- 1. Fence reserve pit on three sides while drilling, fence fourth side immediately upon removal of drilling rig.
- 2. Divert drainages away from well pad.
- 3. A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.

# **STATE ACTIONS**

# **Resource Development Coordinating Committee** Governor's Office of Planning and Budget 5110 State Office Building SLC, UT 84114

Phone I	No. 537-9230
1. State Agency	2. Approximate date project will start:
Oil, Gas and Mining	
1594 West North Temple, Suite 1210	Upon Approval or July 6, 2006
Salt Lake City, UT 84114-5801	
3. Title of proposed action:	
Application for Permit to Drill	
4. Description of Project:	
Petro-Canada Resources (USA) Inc. propos	es to drill the Bryner 11-21 well (wildcat) on a Fee
lease, Carbon County, Utah. This action is beir	• • • • • • • • • • • • • • • • • • • •
resource issues affecting state interests. The Di	
administrative agency in this action and must is	,
5. Location and detailed map of land affected (si	ite location map required, electronic GIS map
preferred)	•
(include UTM coordinates where possible) (indi	cate county)
877' FNL 2312' FWL, N	IE/4 NW/4,
Section 11, Township 12 South,	Range 12 East, Carbon County, Utah
6. Possible significant impacts likely to occur:	
Surface impacts include up to five acres of s	surface disturbance during the drilling and completion
phase (estimated for five weeks duration). If oi	l and gas in commercial quantities is discovered, the
location will be reclaimed back to a net disturba	nce of between one and two acres – not including
road, pipeline, or utility infrastructure. If no oil	or gas is discovered, the location will be completely
reclaimed.	
7. Identify local government affected	
a. Has the government been contacted? No	) <b>.</b>
b. When?	
c. What was the response?	
d. If no response, how is the local governmen	nt(s) likely to be impacted?
8. For acquisitions of land or interests in land by	DWR or State Parks please identify state
representative and state senator for the project	area. Name and phone number of state
representative, state senator near project site, if	applicable:
a. Has the representative and senator been co	
9. Areawide clearinghouse(s) receiving state acti	on: (to be sent out by agency in block 1)
Southeastern Utah Association of Gove	`
10. For further information, contact:	11. Signature and title of authorized officer
	Stel The
	2 ret y the
Diana Whitney	Gil Hunt, Associate Director
<b>Phone:</b> (801) 538-5312	<b>Date:</b> June 22, 2006

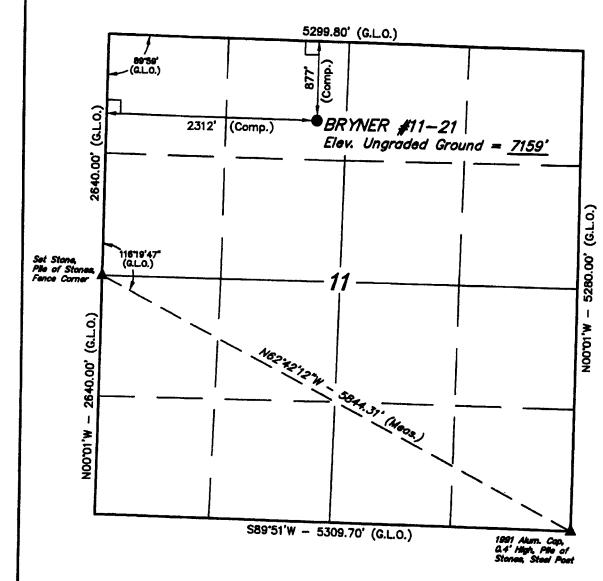
# FORM 3

# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

AMENDED REPORT	
(highlight changes)	

APPLICATION FOR PERMIT TO DRILL					5. MINERAL LEASE NO: Patented	6. SURFACE: Fee			
1A. TYPE OF WORK: DRILL Z REENTER DEEPEN						7. IF INDIAN, ALLOTTEE OR N/A	TRIBE NAME:		
B. TYPE OF WE	iti: OIL [	GAS 🗹 OT	HER	SIN	GLE ZONE 🗌	MULTIPLE ZON	E 🗾	8. UNIT OF CA AGREEMENT	NAME:
2. NAME OF OPE	RATOR:							9. WELL NAME and NUMBER	
	<del>-</del>	rces (USA), Inc.							<b>(</b> ;
3. ADDRESS OF		1000 (0071), 1110.			Di	ONE NUMBER:		Bryner 11-21 10. FIELD AND POOL, OR W	N DOAT:
1099-18th	St, Suite 4	00 <sub>CITY</sub> Denver	STA	TE CO ZIP 80	202 (3	03) 297-2100		undesignated $\gamma$	wideat
4. LOCATION OF	WELL (FOOTAG	GES) & 2,312' FWL, ONE: 877' FNL 8	53885	7X	29 1947	176		11. QTR/QTR, SECTION, TO MERIDIAN:	WNSHIP, RANGE,
AT SURFACE:	877' FNL	& 2,312' FWL,	MINI	VIAV	211111			NENW 11 125	S 12E S
AT DOODOGED	DOODLICING 7	ONE: 877' FNI &	2312' EV	NI -	110.5461	99		1411444 11 124	J IZL J
ATTROFOSEE	PRODUCING 2	ONE. OTT THE O	2,012 1 1	· · ·			ı		
14. DISTANCE IN	MILES AND DIF	RECTION FROM NEARES	TOWN OR PO	ST OFFICE:				12. COUNTY:	13. STATE:
20 0 mile	s northeas	st of Wellington,	litah				ļ	Carbon	UTAH
									<u>]</u>
15. DISTANCE TO	O NEAREST PRO	OPERTY OR LEASE LINE	(FEET)	16. NUMBER O	F ACRES IN LEASE:		17. NU	IMBER OF ACRES ASSIGNED	TO THIS WELL:
338'						440			40
18. DISTANCE TO	NEAREST WE	LL (DRILLING, COMPLET	D, OR	19. PROPOSED	DEPTH:		20. BC	ND DESCRIPTION:	<del></del>
	R) ON THIS LEAS	SE (FEET)				8,000′	Eid	lalite Danel # 44970	•00
None	~							lelity Bond # 41276	199
	(SHOW WHE IF	IER DF, RT, GR, ETC.):		1	ATÉ DATE WORK WI	LL START:		TIMATED DURATION:	
7,159'				7/31/200	96		25	days	
24.			PROPOS	ED CASING A	ND CEMENTIN	IG PROGRAM			
SIZE OF HOLE	CASING SIZE	, GRADE, AND WEIGHT	PER FOOT	SETTING DEPTH		CEMENT TYPE OUR	NTITY \	(IELD, AND SLURRY WEIGHT	<del> </del>
						ocalcin rive, con		TIELD, AND GEOTICS WEIGHT	
12-1/4"	9-5/8"	J-55 ST	36#	1,000	see Drilling I	Plan	•		
7-7/8"	5-1/2"	N-80 LT	17#	8,000					
····								······································	
									·
25.				ATTA	CHMENTS			URIG	NAT
VERIFY THE FOL	LOWING ARE A	TTACHED IN ACCORDAN	CE WITH THE (	JTAH OIL AND GAS CO	ONSERVATION GEN	ERAL RULES:		CONFIDER	JTEAE
WELL PL	AT OD MAD ODE	PARED BY LICENSED SU	IDVEVAD AD E	NCINEED	<b>✓</b> COMPL	ETE DRILLING PLAN		COM IDE	TI SALL
	AT ON MAFFILE	FARED BY LICENSED S	KVETOK OK E	NGMEEN	COMPL	ETE DRILLING PLAN			
EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER			FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER						
NAME (PLEASE PRINT) Don Hamilton TITL				TITLE _	Agent for Petro-Canada Resources (USA), Inc.				
SIGNATURE	Don	Hamilton	,		DATE (	5/13/2006			
(This space for Stat	te use only)		<u> </u>		· · · · · · · · · · · · · · · · · · ·				<del></del>
	_					P	r FC	EIVED	
AGI MI IMPED 100	il il	3007-3120	C		ADDROVAL				
API NUMBER ASSIGNED: 7 UU / 51 JUY					APPROVAL:	JUN 1 6 2006			

### T12S, R12E, S.L.B.&M.



### LEGEND:

= 90' SYMBOL

= PROPOSED WELL HEAD.

- SECTION CORNERS LOCATED.

(AUTONOMOUS NAD 83) LATITUDE = 39'47'40.03" (39.794453) LONGITUDE = 110'32'49.15" (110.546986) (AUTONOMOUS NAD 27) LATITUDE = 39'47'40.16" (39.794489) LONGITUDE = 110'32'46.58" (110.546272)

### PETRO-CANADA RESOURCES (USA), INC.

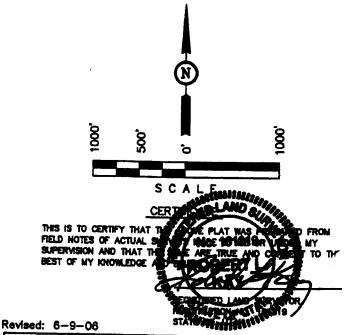
Well location, BRYNER #11-21, located as shown in the NE 1/4 NW 1/4 of Section 11, T12S, R12E, S.L.B.&M., Carbon County, Utah.

### BASIS OF ELEVATION

SPOT ELEVATION LOCATED IN THE NW 1/4 OF SECTION 11, T12S, R12E, S.L.B.&M. TAKEN FROM THE MINNIE MAUD CREEK EAST, QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7135 FEET.

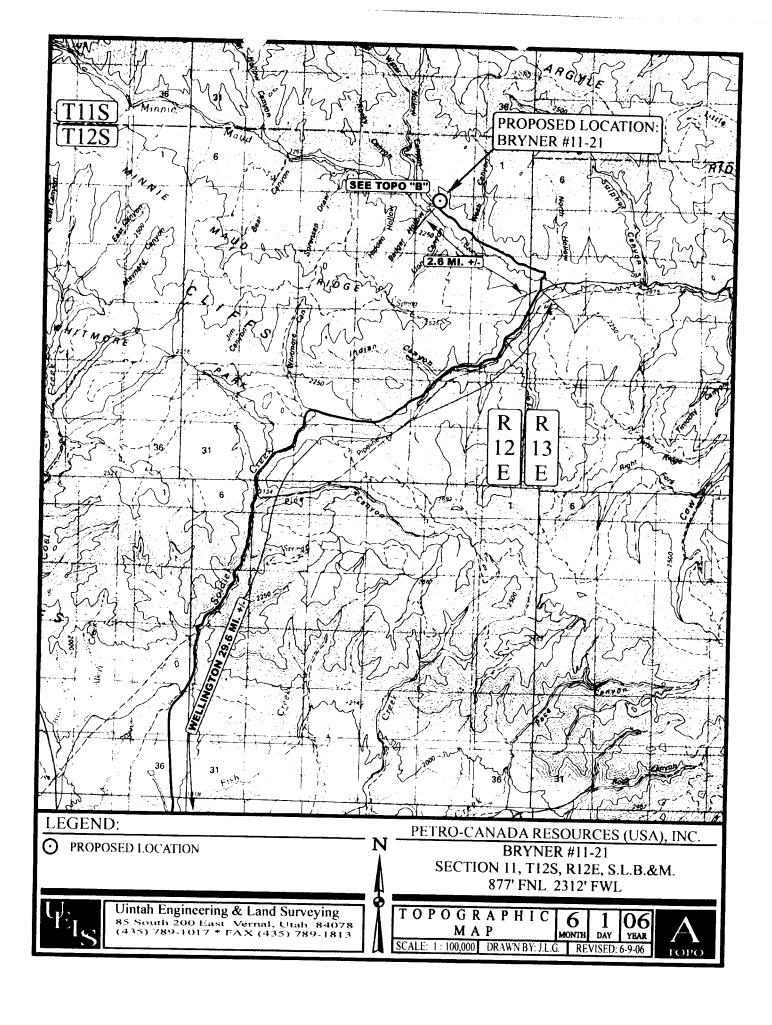
### BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



### UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL UTAH 84078 (495) 789-1017

(400) 105-1017						
SCALE 1" = 1000'		DATE SURVEYED: 5-25-06	DATE DRAWN: 6-5-06			
PARTY M.A. S.D.	K.G.	G.L.O. PLA	\T			
WEATHER WARM		FILE PETRO-C	ANADA ES (USA, INC.)			



## ON-SITE PREDRILL EVALUATION Division of Oil, Gas and Mining

OPERATOR: Petro-Canada Resources (USA), Inc

WELL NAME & NUMBER: Bryner 11-21

**API NUMBER:** 43-007-31208

LEASE: Fee FIELD/UNIT: Undesignated

LOCATION: 1/4,1/4 NENW Sec: 11 TWP: 12 S RNG: 12 E 877 FNL 2312 FWL LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4,1/4 LINE; 920 F ANOTHER WELL.

GPS COORD (UTM): X = E; Y = N SURFACE OWNER: Fee

#### **PARTICIPANTS**

Bart Kettle (DOGM), Don Hamilton (Agent for Petro-Canada), Dan Oman, (Surface Owner), Jacquelyn Oman (Surface Owner). Invited but choosing not to attend Gayla Williams (Carbon County), Rex Sacco (Carbon County and Sandy Lehman (Carbon County).

### REGIONAL/LOCAL SETTING & TOPOGRAPHY

Proposed project is ~30 miles northwest of Wellington, located in Carbon County Utah. Location is surrounded by rangelands and irrigated pastures. Irrigated pastures are a series of small fields located along the flood plain of Minnie Muad creek and into several of the alluvial fan of its tributaries. Rangeland consists of a series of steep canyon covered with Pinion/Juniper woodlands on the north side of the canyon and Utah Serviceberry/Aspen communities on the south side of the canyon. Minnie Muad creek is a perennial stream, however there is few developed riparian communities or saturated soils alone the creek corridor. Grazing appears to be intense season long along the canyon corridor and is presumed to have been that way for sometime. The project is located in a 16-18" precept zone near the head of the Nine Mile drainage. Agriculture lands are restricted to a narrow band along the canyon corridor. Regional topography is semi-arid rangelands dominated by Pinion/Juniper and Douglas Fir woodlands. Soils in the region are generally poorly developed, and moderate too highly erosive.

### SURFACE USE PLAN

CURRENT SURFACE USE: Seasonal livestock grazing, spring/summer big game range, wildlife habitat, and OHV recreational use.

PROPOSED SURFACE DISTURBANCE: 300' of new road construction. Well pad 290'x290'

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: None

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: <u>Production facilities</u> proposed on location, no pipeline planned at this time.

SOURCE OF CONSTRUCTION MATERIAL: On location or local sources.

ANCILLARY FACILITIES: Trailers located on location.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS: Some public interest/concern is anticipated during drilling and production of this well. Landowners adjacent to the project area may be opposed to drilling activities in the drainage. The general public may be opposed to drilling activities being conducted in close proximity of Nine Mile canyon and the increased traffic in Nine Mile canyon.

### WASTE MANAGEMENT PLAN:

Reserve pit will be lined and fenced to allow fluids too evaporate. Once dry the reserve pit contents will be buried in place, back fill will be sufficiently deep so that no liner is exposed. Trash will be contained in a portable metal container and will be hauled from location and disposed of at an approved disposal site. Chemical toilets will be placed on location and sewage will be disposed of at an appropriated disposal site.

### ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: Several dry washes will be altered during construction of the well pad. No floodplains or wetlands will be directly affected by the drilling of a well at this location. However Minnie Muad Creek may see a slight increase in sediment loads coming from the tributary well is stacked in.

FLORA/FAUNA: Mule deer, elk, blacktail jackrabbits, cottontail rabbits, raptors, rodents and lizards.

Grasses: Salina wild rye, crested wheatgrass, Kentucky bluegrass, thickspike wheatgrass, basin wild rye, and cheatgrass. Shrubs: Birch leaf mountain mahogany, common snowberry and green stem rubber rabbit brush. Trees: Rocky Mountain Juniper. Forbs: Houndstongue, western yarrow, common mullein, western sticktight, firecracker penstomen, dandelion, musk thistle, and sulfur cinquefoil.

SOIL TYPE AND CHARACTERISTICS: Clay loam, many sandstone and siltstone fragments.

SURFACE FORMATION & CHARACTERISTICS: Green River Formation alluvial outwash. Soils at the well site are generally clay loams intermixed with shale on a moderate slope. Due to slope and poor ground cover soils are erosive in nature.

EROSION/SEDIMENTATION/STABILITY: Most of the project area lays in areas of clay and clay loam soils ranging from high to moderate potential for wind erosion. The project area has moderate water erosion potential. Soil erosion would increase during the initial construction phase of the project. Removal of vegetation and physical soil crust will reduce surface soil aggregates and therefore reduce soil stability. Loose unstable berms of soil will be left along the roadside and water runoff patterns will be re-directed. These factors will contribute to increased potential for wind and water erosion. As vegetation and soil crusts recover along the roadway soils will become more stable. Wind and water erosion rates would be partially reduced, but still accelerated from normal rates.

RESERV	E PIT
С	CHARACTERISTICS: 150'x75'x10'
L	INER REQUIREMENTS (Site Ranking Form attached): Lining is required.
SURFAC	E RESTORATION/RECLAMATION PLAN
<u>n</u> <u>re</u> po Te	Tell site and immediate area will be cleared of debris and material not eeded for production after the completion of drilling. Areas not equired for production will be graded to as near original condition as ossible and contoured to maintain possible erosion to a minimum. opsoil will be distributed over the disturbed areas and reseeded as rescribed by the landowner.
SI	URFACE AGREEMENT: Signed.
Cí	ULTURAL RESOURCES/ARCHAEOLOGY: NA
OTHER (	OBSERVATIONS/COMMENTS
<u>ac</u> <u>dı</u>	urface owner requested that culvert be installed at ditch crossing on ccess road so that water flow in no restricted. DOGM requested that rainages be diverted away from location and that berms remain between he wash and well pad on the northwest corner.
ATTACHN	MENTS .
<u>P</u> h	notos of this location were taken and placed on file.
	Bart Kettle 07/06/2006 2:24 a.m.  DOGM REPRESENTATIVE DATE/TIME

DATE/TIME

PALEONTOLOGICAL POTENTIAL: None noted

#### Evaluation Ranking Criteria and Ranking Score For Reserve and Onsite Pit Liner Requirements

Site-Specific Factors	Ranking	Site Ranking
Distance to Groundwater (feet) >200	0	
100 to 200 75 to 100	5 10	
25 to 75	15	
<25 or recharge area	20	0
Distance to Surf. Water (feet) >1000	0	
300 to 1000 200 to 300	2 10	
100 to 200 < 100	15 20	10
Distance to Nearest Municipal	20	
Well (feet)	_	
>5280 1320 to 5280	0 5	
500 to 1320 <500	10 20	0
Distance to Other Wells (feet)	20	
>1320	0	
300 to 1320 <300	10 20	0
Native Soil Type		
Low permeability Mod. permeability	0 10	
High permeability	20	10
Fluid Type Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000 TDS >10000 or Oil Base Mud Fluid	10 15	
containing significant levels of hazardous constituents	20	5
Drill Cuttings	_ ¥	4
Normal Rock	0	
Salt or detrimental	10	0
Annual Precipitation (inches) <10	0	
10 to 20 >20	5 10	5
Affected Populations		
<10	0	
10 to 30 30 to 50	6 8	
>50	10	0
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown Present	10 15	0

Sensitivity Level I = 20 or more; total containment is required, consider criteria for excluding pit use. Sensitivity Level II = 15-19; lining is discretionary.

30

(Level <u>I</u> Sensitivity)

Sensitivity Level III = below 15; no specific lining is required.

Final Score

State Online Services ) Agency List utah

Business.utah.gov

Search Utah.gov GO

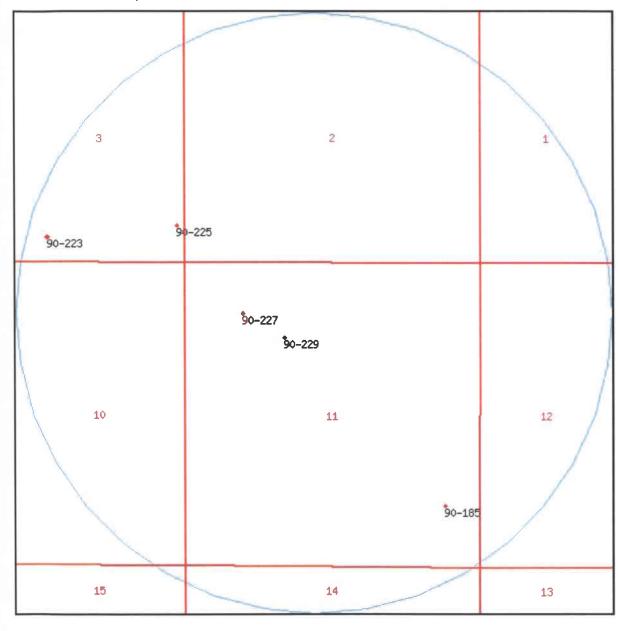
### UTAH DIVISION OF WATER RIGHTS

### **WRPLAT Program Output Listing**

Version: 2004.12.30.00

Rundate: 07/13/2006 11:34 AM

Radius search of 5280 feet from a point S877 E2312 from the NW corner, section 11, Township 12S, Range 12E, SL b&m Criteria:wrtypes=W,C,E podtypes=S,U,D,Sp status=U,A,P usetypes=all





### Water Rights

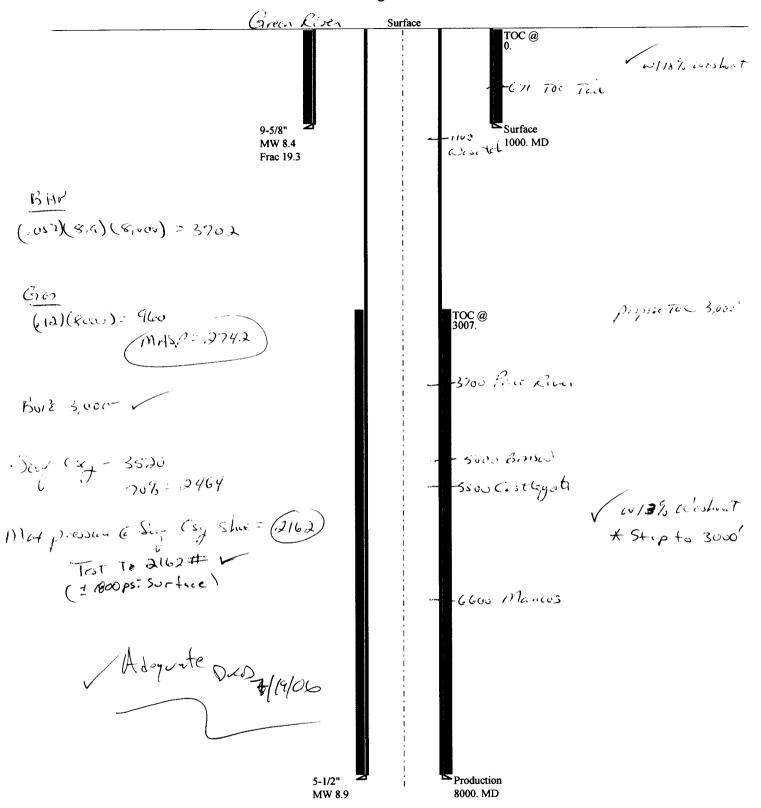
WR Number	Diversion Type/Location	Well Log	Status	Priority	Uses	CFS	ACFT	Owner Name
90-1514	Surface		P	19641231	I	3.500	0.000	MARJORIE J. BRYNER
	N450 E235 S4 03 12S 12E SL							C/O MARJORIE J. BRYNER, TRUSTEE
90-1815	Surface		P	18860000	IS	1.804	0.000	MICHAEL M. CARLSON
	N1090 W620 SE 11 12S 12E SL							14800 SOUTH 1300 WEST
90-1816	Surface		P	18880000	IS	4.208	0.000	MICHAEL M. CARLSON
	N1090 W620 SE 11 12S 12E SL							14800 SOUTH 1300 WEST
90-184	Surface		P	18860000	IS	1.196	0.000	C/O ERNEST DAVIS MINNIE MAUDE IRRIGATION COMPANY
	N1090 W620 SE 11 12S 12E SL							NINE MILE VIA
90-185	Surface		P	18880000	IS	2.792	0.000	C/O ERNEST DAVIS MINNIE MAUDE IRRIGATION COMPANY
	N1090 W620 SE 11 12S 12E SL							NINE MILE VIA
90-218	Surface		P	18850000	IS	0.500	0.000	MARJORIE J. BRYNER
	N440 E260 S4 03 12S 12E SL							C/O MARJORIE J. BRYNER, TRUSTEE
90-219	Surface		P	18850000	IS	0.500	0.000	JAMES ALLEN STAKER
	N440 E260 S4 03 12S 12E SL							P. O. BOX 26
90-220	Surface		P	18870000	IS	0.250	0.000	MARJORIE J. BRYNER
	N440 E260 S4 03 12S 12E SL							C/O MARJORIE J. BRYNER, TRUSTEE
90-221	Surface		P	18870000	IS	0.250	0.000	JAMES ALLEN STAKER
	N440 E260 S4 03 12S 12E SL							P. O. BOX 26
90-222	Surface		P	19020000	IS	0.500	0.000	MARJORIE J. BRYNER
	N440 E260 S4 03 12S 12E SL							C/O MARJORIE J. BRYNER, TRUSTEE
90-223	Surface		P	19020000	IS	0.500	0.000	JAMES ALLEN STAKER

	N440 E260 S4 03 12S 12E SL				P. O. BOX 26
90-224	Surface	P	18980400 IS	3.500 0.000	MARJORIE J. BRYNER
	N650 W140 SE 03 12S 12E SL				RT. 2, BOX 42-B
90-225	Surface	P	18980400 IS	3.500 0.000	JAMES ALLEN STAKER
	N650 W140 SE 03 12S 12E SL				P. O. BOX 26
90-226	Surface	P	18850000 DIS	0.250 0.000	MARJORIE J. BRYNER
	S900 E1020 NW 11 12S 12E SL				C/O MARJORIE J. BRYNER, TRUSTEE
90-227	Surface	P	18850000 IS	0.250 0.000	JAMES ALLEN STAKER
	S900 E1020 NW 11 12S 12E SL				P. O. BOX 26
90-228	Surface	P	18850000 IS	0.500 0.000	MARJORIE J. BRYNER
	S1320 W850 N4 11 12S 12E SL				C/O MARJORIE J. BRYNER, TRUSTEE
90-229	Surface	P	18850000 IS	0.500 0.000	LYLE B. BRYNER
	S1320 W850 N4 11 12S 12E SL				P.O. BOX 242

Natural Resources | Contact | Disclaimer | Privacy Policy | Accessibility Policy

### 07-06 Petro Canada Bryner 11-21

**Casing Schematic** 



07-06 Petro Canada Bryner 11-21 Well name:

Petro-Canada Resources (USA) Operator:

Project ID: String type: Surface

Carbon County Location:

43-007-31208

**Environment:** 

**Design parameters:** Collapse

Mud weight: 8.400 ppg Design is based on evacuated pipe.

Minimum design factors: Collapse: Design factor

1.125

H2S considered? Surface temperature:

75 °F 89 °F Bottom hole temperature: 1.40 °F/100ft Temperature gradient:

Minimum section length: 250 ft

**Burst:** 

1.00 Design factor

Cement top:

0 ft

No

**Burst** 

Max anticipated surface

880 psi pressure: 0.120 psi/ft Internal gradient: Calculated BHP 1,000 psi

No backup mud specified.

**Tension:** 

1.80 (J) 8 Round STC: 1.80 (J) 8 Round LTC: **Buttress:** 1.60 (J) 1.50 (J) Premium:

1.50 (B) Body yield:

Tension is based on buoyed weight. 876 ft Neutral point:

Re subsequent strings:

Non-directional string.

Next setting depth: 8,000 ft 9.500 ppg Next mud weight: Next setting BHP: 3,948 psi 19.250 ppg Fracture mud wt: 1,000 ft Fracture depth: Injection pressure 1,000 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	1000	9.625	36.00	J-55	ST&C	1000	1000	8.796	71.2
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1		2020	4.630	1000	3520	3.52	32	394	12.50 J

Clinton Dworshak Prepared Utah Div. of Oil & Mining

Phone: 801-538-5280 FAX: 801-359-3940

Date: July 14,2006 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 1000 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

07-06 Petro Canada Bryner 11-21

Operator:

Petro-Canada Resources (USA)

String type:

Production

Project ID:

43-007-31208

Location:

Carbon County

Minimum design factors:

**Environment:** 

**Collapse** 

Mud weight: Design is based on evacuated pipe.

Design parameters:

Collapse: Design factor

1.125

H2S considered? Surface temperature: No 75 °F

Bottom hole temperature: Temperature gradient:

187 °F 1.40 °F/100ft

Minimum section length: 1,500 ft

Non-directional string.

**Burst:** 

Design factor

1.00 Cement top: 3,007 ft

**Burst** 

Max anticipated surface

pressure: Internal gradient:

928 psi 0.346 psi/ft

8.900 ppg

Calculated BHP

3,699 psi

No backup mud specified.

Tension:

8 Round STC: 8 Round LTC:

**Buttress:** Premium:

Neutral point:

Body yield:

1.50 (B) Tension is based on buoyed weight.

1.80 (J) 1.80 (J) 1.60 (J) 1.50 (J)

6,920 ft

Run Seq	Segment Length (ft) 8000	<b>Size</b> (in) 5.5	Nominal Weight (lbs/ft) 17.00	Grade N-80	End Finish LT&C	True Vert Depth (ft) 8000	Measured Depth (ft) 8000	Drift Diameter (in) 4.767	Internal Capacity (ft³) 275.7
Run Seq	Collapse Load (psi) 3699	Collapse Strength (psi) 6290	Collapse Design Factor 1.701	Burst Load (psi) 3699	Burst Strength (psi) 7740	Burst Design Factor 2.09	Tension Load (Kips) 118	Tension Strength (Kips) 348	Tension Design Factor 2.96 J

Prepared

Clinton Dworshak

Utah Div. of Oil & Mining

Phone: 801-538-5280 FAX: 801-359-3940

Date: July 14,2006 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8000 ft, a mud weight of 8.9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.



### State of Utah

### **Department of Natural Resources**

MICHAEL R. STYLER Executive Director

Division of Oil, Gas & Mining

> JOHN R. BAZA Division Director

JON M. HUNTSMAN, JR. Governor

> GARY R. HERBERT Lieutenant Governor

> > July 20, 2006

Petro-Canada Resources (USA), Inc. 1099 18th St., Ste. 400 Denver, CO 80202

Bryner 11-21 Well, 877' FNL, 2312' FWL, NE NW, Sec. 11, T. 12 South, Re: R. 12 East, Carbon County, Utah

### Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-007-31208.

Sincerely,

Gil Hunt

Associate Director

SURSI

pab **Enclosures** 

Carbon County Assessor cc:

Operator:	Petro-Ca	nada Resources (USA),	Inc.
Well Name & Number	Bryner 1	1-21	
API Number:	43-007-3	31208	
Lease:	Fee		
Location: NE NW	Sec. 11	T. <u>12 South</u>	<b>R.</b> 12 East

### **Conditions of Approval**

### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

### 2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

- 5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.
- 6. Operator shall comply with applicable recommendations resulting from Resource Development Coordinating Committee review. Statements attached.
- 7. Cement volume for the 5 1/2" production string shall be determined from actual hole diameter in order to place cement from the pipe setting depth back to 3000' MD as indicated in the submitted drilling plan.

From: Robert Clark To: Whitney, Diana

Date: 7/31/2006 11:38:43 AM

24,007,3120g Subject: RDCC short turn around responses

The following comments are provided in response to RDCC #6852 through RDCC #6855 and RDCC #6880.

RDCC #6852, Comments begin: The proposal of Berry Petroleum Company to drill the Wilcox Fee 14-16D-56 wildcat well, in Duchesne County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board if any compressor or pump stations are constructed at the site. If a permit is required, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah. 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The guidelines for preparing an NOI are available on-line at

http://www.airquality.utah.gov/Permits/FORMS/NOIGuide8.pdf. The proposed project is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm . Comments end. RDCC #6853, Comments begin: The proposal of Berry Petroleum Company to drill the Wilcox Fee 13-16D-56 wildcat well, in Duchesne County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board if any compressor or pump stations are constructed at the site. If a permit is required, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The guidelines for preparing an NOI are available on-line at

http://www.airguality.utah.gov/Permits/FORMS/NOIGuide8.pdf. The proposed project is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm. Comments end. RDCC #6854, Comments begin: The proposal of Petro-Canada Resources (USA) to drill the Bryner 11-21 wildcat well, in Carbon County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board if any compressor or pump stations are constructed at the site. If a permit is required, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The guidelines for preparing an NOI are available on-line at http://www.airquality.utah.gov/Permits/FORMS/NOIGuide8.pdf. The proposed project is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at

www.rules.utah.gov/publicat/code/r307/r307.htm. Comments end. RDCC #6855, Comments begin: The proposal of Enduring Resources, LLC to drill the Sand Wash 12-22-44-28 wildcat well, in Uintah County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board if any compressor or pump stations are constructed at the site. If a permit is required, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The guidelines for

preparing an NOI are available on-line at <a href="http://www.airquality.utah.gov/Permits/FORMS/NOIGuide8.pdf">http://www.airquality.utah.gov/Permits/FORMS/NOIGuide8.pdf</a>. The proposed project is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at

www.rules.utah.gov/publicat/code/r307/r307.htm. Comments end. RDCC #6880, Comments begin: The proposal of Enduring Resources, LLC to drill the Bitter Creek 12-23-21-36 wildcat well, in Uintah County, may require a permit, known as an Approval Order, from the Executive Secretary of the Air Quality Board if any compressor or pump stations are constructed at the site. If a permit is required, a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to the Utah Air Quality Rule R307-401. Permit: Notice of Intent and Approval Order. The guidelines for preparing an NOI are available on-line at <a href="http://www.airquality.utah.gov/Permits/FORMS/NOIGuide8.pdf">http://www.airquality.utah.gov/Permits/FORMS/NOIGuide8.pdf</a>. The proposed project is also subject to Utah Air Quality Rule R307-205-5, Fugitive Dust, due to the fugitive dust that is generated during the excavating phases of the project. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules may be found at

www.rules.utah.gov/publicat/code/r307/r307.htm . Comments end. Robert Clark Division of Air Quality536-4435

CC: Mcneill, Dave; Wright, Carolyn

### **DIVISION OF OIL, GAS AND MINING**

### **SPUDDING INFORMATION**

Name of Company:	PETRO-CANADA	RESOURCES
Well Name:	BRYNER 11-21	
Api No: 43-007-	31208 Lease Type:	FEE
Section 11 Townsh	nip <u>12S</u> Range <u>12E</u>	County CARBON
Drilling Contractor	PETE MARTIN'S	RIG # <b>BUCKET</b>
Time How	08/08/06 2:00 PM DRY	
•		
Telephone #	(435) 820-6359	
Date 08/09/2006	Signed CHD	

## STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

			ENTITY ACTI	ON FORM					
perator:		Canada Resource	Operator Account Number: N 2705						
duress.	city D								
	state_		zip 80202		P	hone Nu	ımber: _	(303) 297-2300	
Vell 1									
007-3	31208	BRYNER 11-2	11 No. 11 11 11 11 11 11 11 11 11 11 11 11 11	NENW	11	12\$	12E	Carbon	
	4	99999	1975 Committee C	TELL KOLLIN TÜRKEN MAN ANATI	8/8/2006	Control of Control	8		
Commer			17.3		<u></u>	ONFI	<b>DEN</b>	ŤΙΔΙ	
	MY	1CS			<u> </u>	UIVI	חרוא	11111	
Comme	nts:								
Neil 3									
Comme	nts:						<u> </u>		
Comme				-					
Comme			Alig 1	6 2006					

Regulatorty Analyst

8/16/2006

Date

C - Re-assign well from one existing entity to another existing entity

D - Re-assign well from one existing entity to a new entity

E - Other (Explain in 'comments' section)

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES	FORM 9
STATE OF UTAH  DEPARTMENT OF NATURAL RESOURCES  DIVISION OF OIL, GAS AND MINING	5. LEASE DESIGNATION AND SERIAL NUMBER: n/a
RY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
ill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to at laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME:  n/a
L ☐ GAS WELL ☑ OTHER	8. WELL NAME and NUMBER:

	n/a
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME: n/a
1. TYPE OF WELL OIL WELL GAS WELL OTHER	8. WELL NAME and NUMBER: BRYNER 11-21
2. NAME OF OPERATOR: Petro-Canada Resources (USA) Inc	9. API NUMBER: 007-31208
3. ADDRESS OF OPERATOR: 1099 18th St., Ste. 400 <sub>CITY</sub> Denver STATE CO ZIP 80202 PHONE NUMBER: (303) 297-2300	10. FIELD AND POOL, OR WILDCAT: Wildcat
4. LOCATION OF WELL FOOTAGES AT SURFACE: 877' FNL, 2312' FWL	county: Carbon
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENW 11 12S 12E	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start:  Approximate date work will start:  CASING REPAIR  CHANGE TO PREVIOUS PLANS  DEEPEN  FRACTURE TREAT  NEW CONSTRUCTION  OPERATOR CHANGE	REPERFORATE CURRENT FORMATION SIDETRACK TO REPAIR WELL TEMPORARILY ABANDON TUBING REPAIR
SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:  CHANGE WELL NAME CHANGE WELL STATUS PRODUCTION (START/RESUME) COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATION	<ul> <li>VENT OR FLARE</li> <li>WATER DISPOSAL</li> <li>WATER SHUT-OFF</li> <li>✓ OTHER: Well Status</li> </ul>
DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volume Please note there has been no activity for the noted well since setting 5-1/2" production casing the setting 5-1/2 production casing setting 5-1/2" production casing setting 5-1/2" production casing setting s	
NAME (PLEASE PRINT) Susan Miller TITLE Regulatory Analy	yst
SIGNATURE DATE 10/10/2006	

(This space for State use only)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES

	1					
v	أبويأ	4	1.7	1 11 0	N ×	: 12.7184

	DIVISION OF OIL, GAS AND MINING	<b>7</b>	5. LEASE DESIGNATION AND SERIAL NUMBER: Patented
SUNDRY	NOTICES AND REPORTS ON V	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
Do not use this form for proposals to drill r	new wells, significantly deepen existing wells below current bottom-taterals. Use APPLICATION FOR PERMIT TO DRILL form for such	nole depth, reenter plugged wells, or to proposals.	7. UNIT OF CA AGREEMENT NAME: N/A
1. TYPE OF WELL OIL WELL	GAS WELL OTHER		8. WELL NAME and NUMBER: Bryner 11-21
2. NAME OF OPERATOR: Petro-Canada Resources	(USA) Inc		9. API NUMBER: 4300731208
3. ADDRESS OF OPERATOR: 1099 - 18th St., S 400 CIT		PHONE NUMBER: (303) 297-2100	10. FIELD AND POOL, OR WILDCAT: undesignated
4. LOCATION OF WELL FOOTAGES AT SURFACE: 877' F			county: Carbon
QTR/QTR, SECTION, TOWNSHIP, RAI			STATE: UTAH
11. CHECK APP	ROPRIATE BOXES TO INDICATE NAT	URE OF NOTICE, REPO	ORT, OR OTHER DATA
	ALTER CASING FR.  CASING REPAIR NE  CHANGE TO PREVIOUS PLANS OP  CHANGE TUBING PLU  CHANGE WELL NAME PLU  CHANGE WELL STATUS PR  COMMINGLE PRODUCING FORMATIONS RE  CONVERT WELL TYPE RE  COMPLETED OPERATIONS. Clearly show all pertinent descriptions on the services of the		nes, etc.
			OPY SENT TO OFFERATOR Date: 12-15-06 Initials: DM
			UNTUINAL
NAME (PLEASE PRINT) Don Han	nilton	TITLE Agent for Petro-	-Canada Resources (USA), Inc.
SIGNATURE Don	Hamilton	DATE 11/30/2006	
(This space for State use only)			

THIS SUNDRY IS BEING RETURNED; INSUFFICIENT DATA WAS SUBMETED ROLL PROVE THE REQUESTED ACTION (Drilling reports shall be submitted in accordance with R649-3-6-2.4).

(5/2000)

(See Instructions on Reverse Sid )

DEC 0 6 2006 December 11, 2006

Utah Division of Oil, Gas and Mining, GAS & MINING



FORM 9

### STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OU. CAS AND MINING

D	IVISION OF OIL, GAS AND MINING		5. LEASE DESIGNATION AND SERIAL NUMBER:
SIINDRY	NOTICES AND REPORTS ON V	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
SUNDKI	NOTICES AND REPORTS ON V	ACTES	n/a
Do not use this form for proposals to drill new drill horizontal late	v wells, significantly deepen existing wells below current bottom- rais. Use APPLICATION FOR PERMIT TO DRILL form for such	nole depth, reenter plugged wells, or to proposals.	7. UNIT of CA AGREEMENT NAME:    n/a
1. TYPE OF WELL OIL WELL	GAS WELL OTHER Dryhole		8. WELL NAME and NUMBER:
2. NAME OF OPERATOR:			BRYNER 11-21  9. API NUMBER:
Petro-Canada Resources (I	USA) Inc		007-31208
3. ADDRESS OF OPERATOR: 1099 18th St., Ste. 400 <sub>CITY</sub>	Denver STATE CO 21P 80202	PHONE NUMBER: (303) 297-2300	10. FIELD AND POOL, OR WILDCAT: WILDCAT
4. LOCATION OF WELL			
FOOTAGES AT SURFACE: 877' FN	L, 2312 FWL		COUNTY: Carbon
QTR/QTR, SECTION, TOWNSHIP, RANGE	E MERIDIAN: NENW 11 12S 12E		STATE: UTAH
11. CHECK APPRO	OPRIATE BOXES TO INDICATE NATU	JRE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION	· · · · · · · · · · · · · · · · · · ·	TYPE OF ACTION	
✓ NOTICE OF INTENT	ACIDIZE DEE	PEN	REPERFORATE CURRENT FORMATION
(Submit in Duplicate)	ALTER CASING FRA	CTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start:	CASING REPAIR NEW	CONSTRUCTION	TEMPORARILY ABANDON
3/26/2007	CHANGE TO PREVIOUS PLANS OPE	RATOR CHANGE	TUBING REPAIR
	CHANGE TUBING	G AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT	CHANGE WELL NAME PLUG	G BACK	WATER DISPOSAL
(Submit Original Form Only)	CHANGE WELL STATUS PRO	DUCTION (START/RESUME)	WATER SHUT-OFF
Date of work completion:	COMMINGLE PRODUCING FORMATIONS REC	LAMATION OF WELL SITE	OTHER:
[[	CONVERT WELL TYPE REC	OMPLETE - DIFFERENT FORMATION	
12. DESCRIBE PROPOSED OR COM	PLETED OPERATIONS. Clearly show all pertinent det	ails including dates, depths, volume	s, etc.
1) Set cement retainer at 62 cement on top of retainer.	60'. Pump 20 sacks of cement slurry th	nrough retainer. Pull out o	of retainer and spot 5 sacks of
2) Set cement retainer at 51 cement on top of retainer.	75'. Pump 20 sacks of cement slurry th	nrough retainer. Pull out o	of retainer and spot 5 sacks of
3) Spot 100' cement plug ins	side of 5-½" casing and across top of th	e Mesaverde formation a	t 3886'.
	1090' with 4 spf. Set cement retainer at and spot 5 sacks of cement on top of r		s of cement slurry through cement
	surface with 10 sacks of cement. Cut of dance with State of Utah rules and regu		e grade. Weld on well cap as
Petro-Canada requests CON	NFIDENTIAL status for the subject well	records -	
Coment: Classic	neat, LIS cf/sk yield	•	
NAME (PLEASE PRINT) Susan Miller		TITLE Regulatory Analys	t
111	nlan —		
SIGNATURE . /		DATE 3/23/2007	
This space for State use only)			
APPROV	VED BY THE STATE TAH DIVISION OF		RECEIVED
	/***		<b>=</b> 1

(5/2000)

CIL, GAS, AND MINING
DATE: 2/23/07 (See Instructions on Roverse Side)

EX: See Conditions of Approval (Attached)

RECEIVED MAR 2 3 2007

DIV. OF OIL, GAS & MINING



### State of Utah

### Department of Natural Resources

MICHAEL R. STYLER Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR. Governor

GARY R. HERBERT Lieutenant Governor

# CONDITIONS OF APPROVAL TO PLUG AND ABANDON WELL

Well Name and Number: Bryner 11-21 API Number: 43-007-31208

Operator: Petro-Canada Resources (USA) Inc.

Reference Document: Original Sundry Notice dated March 23, 2007,

received by DOGM on March 23, 2007

### **Approval Conditions:**

- 1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.
- 2. Amend Plug #4 (procedural step #4): In order to adequately isolate the surface shoe, the cement quantity shall be as follows: 25 sx pumped below CICR and 11 sx dumped on top of CICR.
- 3. Amend Plug #5 (procedural step #5): The 9 5/8" x 5  $\frac{1}{2}$ " annulus shall be cemented from 100' to surface (± 24 sx).
- 4. All balanced plugs shall be tagged to ensure the plugs are at the depths specified.
- 5. Surface reclamation shall be done in accordance with R649-3-34 Well Site Restoration. Evidence of compliance with this rule should be supplied to the Division upon completion of reclamation.
- 6. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.
- 7. If there are any changes to the plugging procedure or wellbore configuration, notify Dustin Doucet at 801-538-5281 (ofc) or 801-733-0983 (home) prior to continuing with the procedure.
- 8. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

Dustin K. Doucet

Petroleum Engineer

March 23, 2007

Date

	0/2007		V	elibore Dia	grain				F203
	API Well	No: 43-007-31208	-00-00 Permit No	:	Well Nam	e/No: BRY	NER 11-21	1.12	
			CANADA RESOURCES		222 2 1 444				
	• •		: 12E Spot: NENW	String Info	rmation				
		tes: X: 538853 Y:	•	_	Bottom	Diameter	Weight	Length	Capacit (flcf
		ne: WILDCAT		String	(ft sub)	(inches)	(lb/ft)	(ft)	(170)
		ame: CARBON		HOLI SURF	1080 1080	12.25 9.625	36	1080	2.304
	`		,	1101.2	.005	7.076		1000	
		Plu	#5 (Steps)	PROD	6805	5.5	17	6805	7,66
_	16.711	(05)	(1.15)(7,661)=8	8'0K, 77,9 X	51," (	209) -		<del></del>	3.10
				+18 A	-712	ω6) -	`	)	371
		* Anuli	is 1001 to surface	9 78" X	5/2				J. ,
		Cement from 1080 ft	1. to surface	EMSK					
		Surface: 9.625 in. @	1080 ft.						
	$\boxtimes$	Hole: 12.25 in.,@ 10	080 ft.						
		1090' Pl	weth (Step4)						
			10/K1.15) 2105) = 90/K1.15) (3716) = 2 10/K1.15) (3716) = 2 10/K1.15) (7.661) =	35x					
,		Below forti	10/(LIS) 2108)	Cement In	formation				
2280	,-	VAN	90 (1.15)(3.46)-2	1.7 String	BOC	TOC (ft sub)	Class	Sacks	
2280' Clagstot 2380 Nitorn	+	louvi	5 (US) (7.661)-	PROD	6805	3890	PC	543	
2380			ı	** A * / SURE	1080	0	G	600	
N VOIC		14 bore	Yu Are	d 95'					
		5	1/(1-15)(7.661)=(	11 sx req	_				
		+11	76 /	II sx pate	(9,0				
		* Amend	3x = 44 >> /ec 1/(1.15)(7.66)=( 25 >x /elow,	(( ) × 0 × 1					
		State Control			<	<b>!</b>			
		•	((1-03)	Тор	n Informat Bottom	IOII			
		Pluyt	3 (HEP)	(ft sub)	(ft sub)	Shts	Ft No Sl	its Dt Sque	eze
3886	_k_	in 1/115	3 (Step3) (7.64) = (125)	5194	6660				
rcekw	er	100 100	Name of the last o	MACON					
			A service of the serv						
			Play #2 (Ste Bdo- 205x= 17 House 56x= 44/2	( عم	-051	,			
			T (sy #2(	BOC to	2531 4				
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	900- 205x= (+	Formation	ı Informati	on			
		ice will to	thore 56x= 44 =	Tac to Formatio	on Depth				
	Mb	-51941		o // FLAG	2280				
		,	V 0	NHORN	2380				
5,170				PRRV	3886				
5472 CSLGT	-	Cement from 6805 ft.	to 3890 ft.	CSLGT	5472 5866				
		Production: 5.5 in. @	6805 A. Plustil	STRPT	/ 6470	JA.			the state of the s
5886 BLK 11~1		acrebico'	to 3890 ft. 6805 ft. Plustt   Pelow (2054)(1-15)	17.661)= 17(	o 17643	61 miles the	W 3		
	$\mathbb{Z}$	Hole: 7.875 in. @ 680	05 A. Khave (554)(1.1	-1 ( T-661) - 44	-	6	a to	Lika.	
	-1 T_	66601	(2x)(1)	3/6.	O.K.	ALLE STATES	THE TOTAL	Property Commencer	
GUAD.		and			/	•			

STATE OF UTAH

	<u>~</u>						Y	MENDED REPORT [] highlight changes)
·		_	_			г	_	LEADE DECICHATION AND CEDIA

FORM 8

			DEPAR							€ ~	HAR Bry				SIGNATION AN	ID SEE	NUMF	FR:
		L	יופועונ	ON O	r OIL,	GAS	MIND I	VIIIAIIA	G					Patent	_			
WEL	L COM	PLET	ION	OR F	RECC	MPL	ETIC	N RI	EPOF	RT ANI	LOG			INDIAN, 1/a	ALLOTTEE OF	TRIB	ENAME	
1a. TYPE OF WELL: OIL GAS DRY V OTHER												1	7. UNIT OF CA AGREEMENT NAME - n/a					
b. TYPE OF WORK							DIEC								E and NUMBE			
WELL	HORIZ.	EN	EEP-		ENTRY [		DIFF. RESVR.		ОТН	ER					ER 11-21		·	
2. NAME OF OPERATOR: PETRO-CANADA RESOURCES (USA) INC 3. ADDRESS OF OPERATOR: PHONE NUMBER: 10 FIELD AND POOL, OR WILDCAT																		
1099 18th St., Ste. 400 CITY Denver STATE CO ZIP 80202 (303) 297-2300 Wildcat																		
<ol><li>LOCATION OF W AT SURFACE:</li></ol>			12' FW	VΙ														<b>i.</b>
AT GONT AGE.	0//-1140	L Q 20	12 1 1	· -									NE	ENW	11 12	S 1	2E	
AT TOP PRODU	CING INTERV	AL REPOR	RTED BEL	.OW:												<del></del>		
AT TOTAL DEPT	н: <b>877</b> ′ <b>F</b>	NL &	2312'	FWL										COUNTY Carbon	ı	13.	. STATE	UTAH
14. DATE SPUDDED	): 15	DATE T		HED:		E COMPL			BANDON	en <b>(2</b> 7)	READY TO F	BODU			ATIONS (DF,			
8/8/2006		9/7/20				0/2006			To be plu	goed C					7176', GL	MD	.9·	
18. TOTAL DEPTH:	MD 6,8	05	1	9. PLUG	BACK T.E	TVD	6./50		20. IF	MOLTIPLE C	OMPLETIONS	s, HOW	MANT?		UG SET:	TVD		
22. TYPE ELECTRIC	AND OTHER	MECHAN	IICAL LOG	S RUN (	Submit cop	y of each	)			23.				<u> </u>	[ <del>]</del>			
Halliburton -	Quad C	ombo;	Mud L	_og						WAS WELL	L CORED?		NO NO	=	=	•	t analysis) t report)	
										1	NAL SURVEY	?	NO	=		(Submit		
24. CASING AND LI	NER RECOR	D (Report :	all strings	set in w	elt)													
HOLE SIZE	SIZE/GRA	DE	WEIGHT	(#/ft.)	TOP	(MD)	вотто	M (MD)		EMENTER EPTH	CEMENT TO NO. OF SA		SLUF VOLUMI		CEMENT TO	P **	AMOUNT	PULLED
12-1/4"	9-5/8"	J55	36	#			1,0	080 Class G 600					Sfc					
7-7/8"	5-1/2"	N80	17#	#		6,805			L	ead	PL11	200			3200			
									•	ail	50/50	343			Calc			
	-		· · · · · · · · · · · · · · · · · · ·								· ·					$\dashv$		
26. TUBING RECOR	:D												L		··· <u>·</u>			
SIZE	DEPTH S	ET (MD)	PACKE	R SET (N	AD)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)		SIZE	D	EPTH SET (MC	)) [	PACKER S	ET (MD)
										<u></u>			<del></del>			丄		
26. PRODUCING IN	TERVALS										RATION REC							
FORMATION	NAME	TOP	(MD)	вотто	M (MD)	TOP	(TVD)	вотто	/I (TVD)		INTERVAL (Top/Bat - MD)		SIZE	NO. HOL	<del></del>	-	TION STAT	US T
(A)										5,194		198	3-1/8"	12	Open _	Ξ	queezed	_
(B)		ļ								5.550 6.282		554 306	3-1/8" 3-1/8"	12 72	Open _	Ξ—	queezed	┽—
(C)										6,500		360	3-1/8"	480	<del>=</del>		queezed [	╡—
(D) 28. ACID, FRACTUR	E TREATME	NT CEME	NT SOLIE	E7E ET0	•					0,000	0,0	300 1			1		,	
	NTERVAL	, 022	T						AM	OUNT AND T	YPE OF MAT	ERIAL						
5194-5198; 5		54	177.8	hhis of	Delta Fr	ac-140.	9500 lbs	s 20/40 (	Ottowa :	and: 13.2	16 gals Del	ta Frac	-140, 22	2,299 lbs	sand, resp	ective		
6282-6306	0000-000	<i>,</i>					5,207 lb							·			<del></del>	
6500-6660			44,903	gals D	elta Frac	:-140, 1	00,152	bs sand										
29. ENCLOSED ATT	ACHMENTS:		<u> </u>	-										•	30. \	NELL :	STATUS:	
Z ELECTR	RICAL/MECHA	NICAL LO	GS				$\mathbf{Z}$	GEOLOGI	C REPOR		DST REPORT		DIRECT			Z	<del>-SI</del> :	.9°√.
SUNDR	Y NOTICE FO	R PLUGGI	ING AND (	CEMENT	VERIFICA	TION	<b>V</b>	CORE ANA	ALYSIS		OTHER: Sur	ndry - I	REC	EIV	ED	Pen	nding Pa	.Α '

(CONTINUED ON BACK)

MAR 2 6 2007

JI. 11011174E1144		<del>-</del>				TEST PRODUCTION	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:	
DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTE	HOURS TESTED:		OIL - BBL.	O.G.			
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS. API GRAVITY		BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:	
		<u> </u>	<b>!</b>	INT	ERVAL B (As sho	wn in item #26)					
DATE FIRST PR	RODUCED:	TEST DATE:		HOURS TESTE	D:	TEST PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:	
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS	. API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:	
	<u>.L</u>	<u> </u>	1	INT	ERVAL C (As sho	wn in item #26)	-				
DATE FIRST PE	RODUCED:	TEST DATE:		HOURS TESTE	D:	TEST PRODUCTION RATES: →	OIL - BBL:	GAS MCF:	WATER - BBL:	PROD. METHOD:	
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS	. API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER - 88L:	INTERVAL STATUS:	
	<u> </u>			INT	TERVAL D (As sho	wn in item #26)					
DATE FIRST PE	RODUCED:	TEST DATE:	. · · · ·	HOURS TESTE	HOURS TESTED:		OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:	
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:	
32. DISPOSITIO	ON OF GAS (Sold	, Used for Fuel	Vented, Etc.)			<b>1</b>					
33 SUMMARY	OF POROUS ZO	NES (Include A	uifers):			3	4. FORMATION	(Log) MARKERS:			
Chav all import	ant zones of norce	ity and contents	thereof: Cored inte	rvals and all drill-ster	m tests, including de	epth interval					
tested, cushion	used, time tool op	en, flowing and	thut-in pressures ar	nd recoveries.							
Format	ion	Top (MD)	Bottom (MD)	Descri	ptions, Contents, et	c.		Name		Top (Measured Depth)	
		· ·					Green River			surface	
	ŀ	1					Flagstaff			2,280	
							North Horn		İ	2,380	
						ի	J. Price River		ļ	3,886	
	l						Bluecastle			5,022	
	i						Castlegate			5,472	
	j					İ	Blackhawk		1	5866	
	j								L L		
			Ĭ				Star Point		Ì	6470	
							Star Point			6470	
							Star Point			6470	
35, ADDITION	AL REMARKS (In	clude plugging	procedure)								
36. ADDITION.	AL REMARKS (In	clude plugging	procedure)	status for the	e subject we	Il records. Att		ase find Petr	o-Canada's		
Petro-Ca	AL REMARKS (In Inada reque to plug & a	ests CONF	IDENTIAL	status for the	e subject we	Il records. Att		ase find Petr	o-Canada's	6470 sundry notice	
Petro-Ca for intent	nada reque to plug & a	ests CONF bandon th	FIDENTIAL ne well.			ell records. Atta	ached ple	ase find Petr	o-Canada's		
Petro-Ca for intent	nada reque to plug & a	ests CONF bandon th	FIDENTIAL ne well.				ached ple:		o-Canada's		
Petro-Ca for intent	to plug & a  entify that the form  SE PRINT) Su	ests CONF bandon th	FIDENTIAL ne well.			d from all available rec	ached ple:		ro-Canada's		

INTERVAL A (As shown in item #26)

WATER - BBL: PROD. METHOD:

GAS - MCF:

This report must be submitted within 30 days of

• completing or plugging a new well

- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests
- \* ITEM 20: Show the number of completions if production is measured separately from two or more formations.
- \*\* ITEM 24: Cement Top Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

31. INITIAL PRODUCTION

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

801-359-3940 Fax:

## CONFIDENTIAL

### PETRO-CANADA RESOURCES (USA) INC.



NE NW SECTION 11, T12S-R12E CARBON COUNTY, UTAH

### PETRO-CANADA RESOURCES (USA) INC.

### **BRYNER 11-21**

NE NW SECTION 11, T12S-R12E CARBON COUNTY, UTAH

### **CONTENTS**

Summary
Well Data
Well Chronology
Geological Interpretation
Bit Record
Mud Data
Drilling Data
Survey Record

#### **SUMMARY**

The Petro-Canada Resources (USA) Inc., Bryner 11-21 well was drilled as an exploratory test of the Cretaceous Mancos Shale at Minnie Maud Creek, Carbon County, Utah.

The well is located about 32 miles north-east of the town of Wellington in north-central Carbon County, Utah. Control for the well was the Anadarko Bryner A-1X well, located NE SE section 11 T12S-R12E about 3500 feet to the south-east. This well was drilled as a Mesaverde Group test in July, 1993 and was subsequently plugged and abandoned.

The objective at this location was to drill through the Tertiary Green River, Colton, Flagstaff and North Horn formations and through the Cretaceous Mesaverde Group into the Mancos Shale. All reservoirs were evaluated for possible gas production potential by cuttings, hotwire gas response, penetration rate, electric logs and sidewall cores.

### **Tertiary**

Colton Formation Mud logging and geologic supervision commenced in the Eocene-Paleocene fluvial deposits of the Colton Formation, immediately below the surface casing at 1080 feet. Samples indicated an alternating sequence of reddish-brown fluvial sandstones, siltstones and shales, gradually becoming more sand-dominated in the lower 400 feet of the formation. The sandstones were generally fine-grained, with a reddish-brown or white calcareous clay fill and poor porosity. No fluorescence or cut was evident in any of the samples and gas readings were uniformly low; in the range of 10 to 40 units.

Flagstaff Formation The Paleocene Flagstaff Formation was penetrated at approximately 2280 feet by driller's depth. Samples were white, tan and gray limestone, composed of massive, dense, cryptocrystalline mudstone, with very poor porosity. Background gas while drilling the Flagstaff Formation was 10 units or less. Dull gold mineral fluorescence was noted in most samples but no cut was evident.

North Horn Formation The Paleocene-Cretaceous North Horn Formation was entered at 2380 feet by logger's depth. Samples indicated a rapidly alternating sequence of fluvial sediments comprising varicolored red and gray shale and siltstone, gray and brownish-gray sandstone and gray and tan marl, calcareous claystone and limestone. The sandstones were generally very fine to fine-grained and tight, with white, calcareous clay infilling and poor porosity. Background gas throughout the North Horn Formation was generally ten units or less, reaching 52 units between 3720 and 3740 feet. No fluorescence or cut was present in any of the samples.

#### Mesaverde Group (Cretaceous)

<u>Upper Price River Formation</u> The Upper Price River Formation was penetrated at 3886 feet by logger's depth (sea level datum +3290). Samples indicated a sandstone-rich sequence of fluvial sediments, light to medium-gray in color and ranging from very fine to coarse-grained. Interbedded with the sandstones were gray siltstone, shale and claystone. No fluorescence or cut was noted in any of the samples but background gas readings began to increase significantly at a depth of about 4080 feet and chromatograph readings registered the first indications of ethane and propane gas.

Below 4500 feet most of the sand intervals were showing a strong gas response of up to 2513 units, even though the mud weight of 9.5 lb/g was high enough to suppress gas shows. Samples corresponding to the gas peaks were generally gray, fine-grained sandstone with white calcareous clay fill and poor to occasionally fair porosity. No fluorescence or cut was evident in any of the samples.

Bluecastle Member The Bluecastle Member of the Upper Price River Formation was penetrated at 5472 feet by logger's depth (sea level datum +2154 feet). Samples indicated a sandstone-rich sequence of fluvial sediments with occasional interbedded siltstones and floodplain mudstones. Background gas ranged from about 50 to 200 units, averaging about 90 units. Towards the base of the Bluecastle, several gas peaks of 1200 to 2383 units were recorded. Samples at 5370 feet exhibited weak, dull yellow fluorescence and a weak, bright yellow cut when crushed.

Sandstone samples were generally very-fine to fine-grained and tight, with white clay and calcareous clay infilling. Porosity was predominantly poor with occasional fair porosity.

<u>Castlegate Sandstone</u> The Castlegate sandstone was entered at 5472 feet by logger's depth (sea level datum +1704 feet). The formation was a 394-foot thick sandstone sequence with occasional interbedded siltstones. Towards the base of the sequence, shale, carbonaceous shale and a few thin coal stringers were noted.

Background gas through the Castlegate increased from about 90 units to an average of about 280 units, drilling with a mud weight of 9.6 lb/g. Numerous gas peaks from 400 units up to 2430 units, with traces of C<sub>2</sub>-C<sub>4</sub>, were recorded from individual sands and many samples had weak fluorescence and a weak, bright yellow cut. Sandstone samples were generally light gray to whitish-gray, very fine to fine-grained, tight, with white clay infilling and poor to fair porosity.

<u>Blackhawk Formation</u> The 604-foot thick Blackhawk formation was penetrated at 5866 feet by logger's depth (sea level datum +1310 feet). Samples indicated a sand-dominated fluvial sequence in the top few hundred feet, grading into a deltaic suite of interbedded shale, sand, siltstone and coal, with coal and carbonaceous shale increasing towards the base.

Within the top 200 feet of the Blackhawk Formation background gas was in the range of 30 to 200 units and averaged about 60 units. Below 6100 feet background gas increased to an average of about 220 units and numerous gas peaks up to 2720 units were recorded. Some of the larger gas peaks were associated with coal seams. Sandstones within the Blackhawk were generally light gray or light brownish-gray, very fine to fine-grained, tight sandstones with hard, siliceous cement and traces of white clay fill. Porosity was usually poor with occasional fair porosity. No fluorescence or cut was present in any of the samples.

#### Mancos Shale (Cretaceous)

#### Starpoint Sandstone Member

The Starpoint Sandstone member of the Mancos Shale was penetrated at 6470 feet by logger's depth (sea level datum +706 feet). Samples indicated a suite of marginal marine sandstones with interbedded siltstones, shales and silty shales. Background gas decreased within the first 70 feet of the Starpoint from an average of 220 units to about 30 units. Several small peaks of up to 500 units were recorded and one peak of 2305 units appeared to be associated with a thin coal stringer. Mud weight while drilling the Starpoint was 9.5 lb/g.

The sandstones of the Starpoint Member were typically light gray to whitish-gray, very fine to fine-grained, tight and well cemented with white calcareous clay. Porosity was generally poor. No fluorescence or cut was noted in any of the samples.

<u>Conclusion</u> Drilling was terminated at a total depth of 6805 feet, within the Starpoint Sandstone. A full suite of electric logs was run by Halliburton Services comprising a Quad-Combo log (DSN/SDL/MEL/BCS/HRI), an MRIL log and 56 recovered sidewall cores. Electric logs indicated that the well contained numerous tight gas-charged sands, confirming the observed mudlogging data.

Production casing was accordingly set to total depth and the well will subsequently be evaluated for productive potential.

Respectfully,

Patrick McConigley Consulting Geologist

### **WELL DATA**

**OPERATOR:** 

Petro-Canada Resources (USA) Inc. 1099 Eighteenth St., Suite 400

Denver, Colorado 80202 Phone: (303) 297 2300 Fax: (303) 297 7708 Geologist: Morgan Hocker

Drilling Consultant: Larry Sessions

WELL:

Bryner 11-21

API NUMBER:

43-007-31208

AREA:

Minnie Maud Creek (Exploratory)

LOCATION:

NE NW Section 11, T12S-R12E

877' FNL

2312' FWL

Carbon County, Utah

**ELEVATION:** 

GL: 7159'

KB: 7176'

**OPERATIONS STARTED:** 

August 14, 2006

COMPLETED:

September 10, 2006

TOTAL DEPTH:

6805'

**OPEN HOLE SIZE** 

12 1/4 inches from surf. to 1085'
7 7/8 inches from 1085' to TD (6805')

**CASING** 

9.625-inch set at 1080 feet (KB) 5-inch, set from 6805 feet to surface.

**DRILLING CONTRACTOR:** 

DHS Drilling, Inc, Casper, Wyoming

Rig #15

DRILLING FLUID:

**Dynamic Drilling Fluids** 

Denver, Colorado (303) 573-6827

Mud Engineer: Shea Tobin

**SAMPLES:** 

30-foot samples from 1150 to 3600 feet 20-foot samples from 3600 4500 feet

10-foot samples from 4500 to TD

Continuous samples over zones of interest

CORES:

None

**ELECTRIC LOGS:** 

Halliburton Services, Vernal, Utah

Quad-Combo (DSN/SDL/MEL/BCS/HRI) TD to base surf csg.

GR; base surface casing to surface

MRIL. Selected intervals

Sidewall Cores (recovered 46 of 50 attempted)

FORMATION AT TD:

Mancos Shale (Starpoint Ss Mbr)

MUD LOGGING:

**Tooke Rockies** 

Casper, Wyoming

Hotwire and chromatograph Payson well monitoring system Mud logger: Kyle Thompson

WELLSITE GEOLOGIST:

Patrick McConigley

2216 Crescent Ave.

Casper, Wyoming 82604-3234

Phone: (307) 265-3836

**WELL STATUS:** 

Completed, under evaluation.

#### WELL CHRONOLOGY

Note:

Daily depth is shown at 6:00 PM on that date. Footage drilled in the previous 24 hours is shown to the right of the daily depth. Well Chronology is from 6:00 PM on previous day to 6:00 PM on date shown.

August 14-18, 2006

Moved rig on location and rigged up. Surface casing had been previously set

at 1080 feet (KB). Pits had been dug and lined. Hauled water and filled

pits. Waited on mud pump. Installed BOP's.

August 19

Completed rig-up. Tested BOP's.

August 20 1544' / 464' Finished Testing BOP's. Picked up bottom-hole assembly and drill pipe and

ran in hole with mud motor and bit #1 (Smith GEO). Tagged cement at 995 feet and drilled cement and shoe to 1085 feet. Commenced drilling new hole

at 8:55 AM. Drilled to 1544 feet.

August 21

Drilled from 1544 feet to 2741 feet with PDC bit and mud motor. Survey at

2741' / 1197'

2439 was 2<sup>3</sup>/<sub>4</sub> degrees

August 22 3415' / 674'	Drilled from 2741 to 3415 feet. Pulled 3 stands out of hole and changed swivel packing on kelly. Survey at 2753 feet was 3 degrees, back to 134 degrees at 3136 feet.
August 23 4098' / 683'	Drilled from 3415 to 4098 feet. Surveys 3½ to 4 degrees.
August 24 4666' / 568'	Drilled from 4098 feet to 4666 feet. Surveys 21/4 degrees.
August 25 5109' / 443'	Drilled from 4666 to 5109 feet. Surveys 3.5 to 4 degrees.
August 26 5275' / 166'	Drilled from 5109 to 5160 feet. Surveys at 5140 and 5328 feet were both 4 degrees. Circulated bottoms-up and conditioned hole for trip. Pumped pill and began pulling out of hole. Hole pulled tight from 1287 to 1100 feet. Worked BOP's. Laid down mud motor and bit. Picked up bit #3 (Smith ER 20642), bottom-hole assembly and mud motor and ran in hole. Washed and reamed 60 feet to bottom. Drilled from 5198 to 5275 feet.
August 27 5423' / 148'	Drilled from 5255 to 5423 feet.
August 28 5584' / 161'	Drilled from 5423 to 5584 feet. Survey at 5500 feet: 3.75 degrees.
August 29 5796' / 212'	Drilled from 5584 to 5592 feet. Circulated and conditioned hole. Pulled out of hole with bit #2. Picked up bit #3 (Smith ER20642) and ran in hole. Slipped and cut drilling line. Reamed 78 feet to bottom and drilled from 5592 to 5796 feet.
August 30 5890' / 94'	Drilled from 5796 to 5804 feet. Worked on pump and compressor. Drilled to 5890 feet and circulated and conditioned hole. Survey at 5833 feet: 5 degrees. Pulled out of hole with bit #3.
August 31 6004' / 114'	Continued pulling out of hole and laid down bit #3. Picked up bit #4 (Smith F57Y) and ran back in hole. Drilled from 5890 to 6004 feet. Survey at 5975 feet: 4 deg.
September 1	Drilled from 6004 to 6161 feet.

# September 2 6371' / 210'

Drilled from 6161 to 6371 feet. Survey at 6262 feet was 2 deg. (possible misrun).

# September 3 6466' / 95'

Drilled from 6371 to 6427 feet. Circulated and conditioned hole for trip. Pulled out of hole with bit #4. Picked up monel collar and bottom hole assembly and survey tool and ran back in hole with bit #5 (Smith ER 20642). Ran deviation survey and retrieved survey tool. Deviation at 6375 feet was 4.88 degrees, azimuth 199.34 degrees. Washed and reamed back to bottom and drilled from 6427 to 6466 feet.

# September 4 6577' / 111'

Drilled 6466 to 6538 feet. Lost 200 barrels of mud at 6538 feet. Circulated and mixed mud. Drilled from 6538 to 6577 feet.

# September 5 6719' / 142'

Drilled from 6577 to 6719 feet

# September 6 6805' / 86'

Drilled from 6719 to 6805 feet. Survey at 6701 feet: 5 degrees. Circulated 1.5 hours and conditioned hole for logs. Made 20 stand short trip and went back to bottom. Circulated 2.5 hours and conditioned hole for logs. Pumped pill and strapped out of hole.

# September 7 6805' / 0'

Continued strapping out of hole. Rigged up Halliburton loggers and ran in hole with Quad-Combo log (DSN/SDL/MEL/BCS/HRI). Logged out from TD to base of surface casing at 1080 feet and continued GR through casing to surface. Ran in hole with MRIL log and logged selected hole intervals. Finished logging at 3:30 PM. Waited on sidewall coring tool to arrive from Odessa, Texas. Sidewall coring tool arrived on location at 9:50 PM. Rigged up tool and ran in hole.

## September 8 6805' / 0'

Began cutting sidewall cores from 6647 feet. Cut approximately 33 cores, with multiple attempts required at several stations. Pulled out of hole to repair malfunction of coring head. Downloaded cores and repaired tool. Ran back in hole and cut remainder of cores to total of 50. Pulled out of hole and downloaded cores. Retrieved 46 cores of 50 attempted. Laid down coring tool and rigged down Halliburton.

Halliburton left location about 8:00 AM. Waited on orders. Ran in hole with magnet and washed to bottom. Circulated on bottom. Orders received to prepare to run casing. Rigged down Tooke mudloggers. Mudlogger and geologist left location at 4:00 PM.

### **GEOLOGICAL INTERPRETATION**

SYSTEM FORMATION					
MEMBER BED	FROM	то	THICK- NESS	DATUM OF TOP	FLUID CONTENT
Tertiary (Eocene)					
Green River Fm	Surface	undif.		+7159 (GL)	water
Tertiary (Eocene-Paleocene)					
Colton Fm	undif.	2280			water
Tertiary (Paleocene)					
Flagstaff Fm	2280	2380	100	+4896	tight
North Horn Fm	2380	3886	1506	+4796 (KB)	water
Cretaceous					
Mesaverde Group					
U. Price River Fm	3886	5472	1586	+3290	gas
Bluecastle Mbr	5022	5468	446	+2154	gas
Buck Tongue Mbr	5468	5472	4	+1708	tight
Castlegate Ss	5472	5866	394	+1704	gas
Blackhawk Fm	5866	6470	604	+1310	gas
Mancos Sh					
Star Point Ss Mbr	6470	TD	335+	+ 706	gas

## BIT RECORD

<u>BIT NO</u>	SIZE	<u>MFGR</u>	TYPE	DEPTH <u>OUT</u>	FOOTAGE	<u>HOURS</u>	ACCUM HOURS	FT/HR	DEV	REMARKS
1	7 7/8	Smith	GEO	5160	4080	111	111	36.8	4	PDC bit w/mud motor
2	7 7/8	Smith	MF45H	5592	432	55	166	7.9	3.75	Drilled Bluecastle Fm
3	7 7/8	Smith	ER20642	5890	298	22.5	188.5	13.2	5	PDC bit w/mud motor
4	7 7/8	Smith	F57Y	6427	537	72	260.5	7.5	4.8	Drilled Blackhawk Fm
5	7 7/8	Smith	ER20642	6805	378	66	326.5	5.7	5	PDC bit. TD & log

## MUD DATA

2006 DATE	DEPTH	WT	EV	DV	V.D.	OFFI C				_		
	DEFIH	<u>WT</u>	<u>FV</u>	<u>PV</u>	<u>YP</u>	<u>GELS</u>	<u>pH</u>	<u>WL</u>	<u>CK</u>	<u>CL</u>	SOL	COMMENTS
8/21	2321	8.7	35	11	5	2/8	10.5	10.8	1/32		6.0	Drlg, w/PDC bit
8/22	3146	9.1	40	14	12	4/16	8.2	12.0	1/32	60	8.0	North Horn Fm
8/23	3789	9.3	42	15	13	4/16	8.6	9.2	1/32	60	8.0	North Horn Fm
8/24	4329	9.4	38	12	12	3/15	8.4	10.4	1/32	400	9.0	U. Price River Fm
8/25	4976	9.4	39	13	10	4/16	8.7	10.4	1/32	200	9.0	U. Price River Fm
8/26	5198	9.4	42	14	10	4/18	8.8	17.8	1/32	200	9.0	Bluecastle Fm
8/27	5336	9.4	42	15	13	5/19	9.4	17.5	1/32		9.0	Bluecastle Fm
8/28	5502	9.5	43	16	12	7/21	9.7	16.8	1/32		9.0	Castlegate Fm
8/29	5643	9.6	43	16	13	7/23	9.3	16.4	1/32		9.5	Castlegate Fm
8/30	5838	9.6	45	10	15	15/25	9.0	16.0	1/32		10.0	Blackhawk Fm
8/31	5914	9.7	48	11	13	12/21	9.5	16.0	1/32	800	12.0	Blackhawk Fm
9/1	6075	9.6	38	10	10	15/25	10.0	16.0	1/32	800	11.0	Blackhawk Fm
9/2	6255	9.6	40	9	16	20/28	9.5	16.0	1/32	800	11.0	Blackhawk Fm
9/3	6427	9.6	40	12	8	12/20	9.5	12.0	1/32	800	12.0	Starpoint Fm

## MUD DATA (Cont.)

The transfer of the transfer o

	2006												
	DATE	<u>DEPTH</u>	<u>WT</u>	<u>FV</u>	<u>PV</u>	<u>YP</u>	<u>GELS</u>	Ηg	<u>WL</u>	<u>CK</u>	<u>CL</u>	SOL	COMMENTS
	9/4	6532	9.5	40	9	15	12/22	10.0	14.0	1/32	800	12.0	Starpoint Fm
	9/5	6629	9.5	39	9	20	20/25	9.5	18.0	1/32	800	13.0	Starpoint Fm
	9/6	6787	9.3	39	10	18	14/22	9.4	13.6	1/32	800	12.0	Starpoint Fm
	9/7	6805	9.4	40	12	14	8/19	9.4	18.4	1/32	800	12.0	TD & log
L													

## **DRILLING DATA**

2006 DATE	INITEDMAI	FOOTAGE	WOD (1000 / DG)			
DATE	INTERVAL	<u>FOOTAGE</u>	WOB (1000 LBS)	<u>RPM</u>	PP (PSI)	<u>REMARKS</u>
8/20	995 – 1544	549	5 – 12	60 – 65	540 560	Drlg. w/PDC bit & mud motor
8/21	1544 - 2741	1197	8 – 11	65 – 66	735 – 850	North Horn Fm
8/22	2741 – 3415	674	15 – 19	66	970	North Horn Fm
8/23	3415 – 4098	683	15 – 18	66	1000 – 1160	U. Price River Fm
8/24	4098 4666	568	15 – 20	65	1250 – 1300	U. Price River Fm
8/25	4666 – 5109	443	15 – 20	55 – 65	1100 – 1400	Bluecastle Fm
8/26	5109 - 5305	196	15 – 40	40 – 55	1250 – 1400	3-cone bit & mm, Bluecastle Fm
8/27	5305 – 5423	118	35 – 40	40 – 49	1150 – 1250	Bluecastle Fm
8/28	5423 – 5581	158	35 – 40	40 – 55	1150 – 1350	Castlegate Fm
8/29	5581 – 5796	215	20 – 40	40 – 65	1325 – 1750	PDC bit & mm, Castlegate Fm
8/30	5796 – 5890	94	19 – 20	55 – 65	1500 – 1750	Castlegate Fm
8/31	5890 - 6004	114	40	60	1575	3-cone bit & mm, Blackhawk Fm
9/1	6004 - 6161	157	40	65	1500	Blackhawk Fm
9/2	6161 – 6371	210	40	65	1460	Blackhawk Fm

## DRILLING DATA (cont.)

9/3	6371 – 6466	95	22 – 40	65	1450 – 1500	PDC bit & mm, Blackhawk Fm
9/4	6466 – 6577	111	20	65	1400 – 1625	Starpoint Fm
9/5	6577 – 6719	142	23 – 24	65	1510 – 1560	Starpoint Fm
9/6	6719 - 6805	86	23 - 25	65	1500 - 1600	TD & log

#### **SURVEY RECORD**

DEPTH (ft.)	DEVIATION (deg).		DEPTH (ft.)	DEVIATION (deg).
1121	1/4		4490	2 1/4
1800	3/4		4790	4
2300	2 3/4		4994	3 ½
2436	1 3/4	:	5140	4
2834	3		5328	4
2860	2 1/4		5500	3 ¾
3236	1 3/4		5833	5
3626	4		5975	4
3892	3 ½		6262	MR
4191	2 1/4		6375	4.88
4196	2 1/4		6701	5





## CORE LABORATORIES, INC.

2860 Vallejo St., Suite B, Englewood, Co 80110 Phone: 303-806-0092 Fax: 303-806-0183

# Petro-Canada Resources Bryner 11-21 Carbon County, Utah

**ROTARY SIDEWALL CORE ANALYSIS** 

Date: 9-15-2006



#### **CORE LABORATORIES**

2860 Vallejo St., Suite B, Englewood, Co 8011 Telephone: 303-806-0092 Fax: 303-806-0183

#### Field and Laboratory Procedures

In September of 2006, Core Laboratories, Inc. received Forty Six rotary sidewall core samples from the Bryner 11-21 well in Carbon County, Utah.

The samples were trimmed with a diamond tipped saw and weighed. The samples were then dried in a convection oven at 220 degrees.

The samples were removed from the oven and allowed to cool within a sealed glass desiccator until reaching room temperature. Specific physical properties (length, diameter, weight, and bulk volume) of each plug sample were measured and recorded. The samples were individually placed into a Coberly-Stevens Boyle's Law porosimeter and injected with helium at approximately 100 psig. Corresponding pressures and volumes were measured and utilized in the Boyle's Law equation to calculate sample grain volume. Pore volume was determined by subtracting the calculated grain volume from the bulk volume (determined by Archimedes Principle using mercury immersion). Grain densities were checked against lithology standards. Sample lengths and diameters were measured using digital metric calipers.

The samples were next placed individually into a Hassler-Sleeve core holder. The annulus of the core holder was pressurized to a pre-determined value (400 psig minimum) to seal the sample. Nitrogen gas was forced through the sample at a given pressure under steady-state conditions, flow rate was measured and permeability to air was calculated. Utilizing the parameters thus measured, a Klinkenberg-corrected permeability value was calculated and reported. The following tabular data details the results of these analyses.

It has been our pleasure to perform this study for Petro-Canada Resources. Please feel free to contact us should any questions arise or if we may be of further assistance.

Jeff Craig

Sincerely

Laboratory Supervisor

Core Laboratories

Denver, Colorado

Petro-Canada Resources Bryner 11-21 Carbon County, Utah



CL File No.: Eng - 26074 Date: 9-15-2006 Analyst(s): JC

#### **ROTARY SIDEWALL CORE ANALYSIS**

						Grain	Saturation		
Sample	Depth	Net Confining	Porosity	Permea	bility	Density	pore volume		
lumber		Stress		Klinkenberg	Kair	g/cm3	total fluids	Description	Footnote
	ft	psig	%	md			%		Toomote
1	2560.0	400	14.1	29.67	34.98	2.65	79.0	Sst, lt gry, m gr, wl srt, wl cmt, calc	
2	3650.0	400	12.3	4.82	6.06	2.66	30.6	Sst, lt gry, m gr, wl srt, wl cmt, calc	
3	3706.0	400	6.4	0.02	0.05	2.70	12.7	Sst, lt gry, v f gr, v wl srt, wl cmt, v calc	
4	3719.0	400	12.6	103.74	116.30	2.67	90.8	Sst, lt gry, f to m gr, wl srt, wl cmt, calc	
5	4079.0	400	10.6	1.19	1.53	2.66	91.1	Sst, lt gry, m gr, wl srt, wl cmt, sli calc	
6	4100.0	400	12.2	9.11	11.36	2.66	89.4	Sst, lt gry, m gr, wl srt, wl emt, sli cale	
7	4165.0	400	11.5	3.41	4.30	2.66	93.7	Sst, lt gry, f to m gr, wl srt, wl cmt, sli calc	
8	4178.0	400	8.3	0.85	1.12	2.67	91.4	Sst, lt gry, m gr, wl srt, wl cmt, calc	
9	4346.0	400	6.8	0.07	0.12	2.65	24.4	Sst, lt gry, v f gr, v wl srt, v wl cmt, sli calc,	eli shl lam
10	4387.0	400	11.7	0.16	0.24	2.66	43.9	Sst, lt gry, f gr, wl srt, wl cmt, tr calc	311 3111 14111
11	4428.0	400	8.7	0.04	0.07	2.68	94.7	Sst, lt gry, f gr, wl srt, wl cmt, tr calc, slt noc	
12	4524.0	400	12.9	6.38	8.01	2.66	92.6	Sst, lt gry, f to m gr, wl srt, wl cmt, tr calc	
13	4539.0	400	11.0	2.21	2.86	2.66	23.8	Sst, lt gry, f gr, wl srt, wl cmt, tr calc, sli shl	lam
14	4592.0	400	11.6	0.21	0.31	2.65	94.3	Sst, it gry, f to m gr, wl srt, wl cmt	lam
15	4597.0	400	12.5	0.25	0.36	2.66	98.7	Sst, lt gry, f to m gr, wl srt, wl cmt	
16	4744.0	400	12.8	1.52	1.97	2.66	97.9	Sst, lt gry, f gr, wl srt, wl cmt, tr calc	
17	5033.0	400	9.6	0.12	0.18	2.66	97.7	Sst, lt gry, f gr, wl srt, wl cmt	
18	5040.0	400	10.0	0.08	0.13	2.67	93.5	Sst, lt gry, f gr, wl srt, wl cmt	
19	5084.0	400	5.8	0.04	0.08	2.64	35.8	Sst, lt gry, v f gr, v wl srt, v wl cmt	
20	5092.0	400	9.9	not suit		2.65	0.0	Sst, it gry, f gr, wi srt, wi cmt	
21	5130.0	400	11.1	not suit		2.64	89.3	Sst, lt gry, f gr, wl srt, wl cmt, tr calc	
22	5146.0	400	11.1	7.62	9.56	2.64	96.0	Sst, lt gry, v f gr, wl srt, wl cmt, tr calc	
23	5175.0	400	1.0	0.00	0.01	2.65	98.7	Sst, gry, v f gr, v wl srt, wl cmt	
24	5197.0	400	12.0	454.23	483.41	2.63	95.5	Sst, lt gry, f gr, wl srt, wl cmt, tr calc	
25	5219.0	400	8.1	0.43	0.59	2.66	35.6	Sst, it gry, f gr, wi srt, wi cmt, tr care Sst, it gry, f gr, wi srt, wi cmt, cale cmt frac,	ali ahl law
26	5229.0	400	0.1	0.00	0.00	2.61	96.4	Sst, gry, v f gr, v wi srt, wi cmt	SII SIII IAM
27	5256.0	400	3.9	0.01	0.02	2.65	71.6	Sst, gry, v f gr, v wl srt, wl cmt	
28	5425.0	400	1.9	0.00	0.00	2.72	73.8	Sst, gry, v i gr, v wi srt, wi cmt, tr calc	

Petro-Canada Resources Bryner 11-21 Carbon County, Utah



CL File No.: Eng - 26074 Date: 9-15-2006 Analyst(s): JC

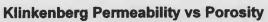
#### **ROTARY SIDEWALL CORE ANALYSIS**

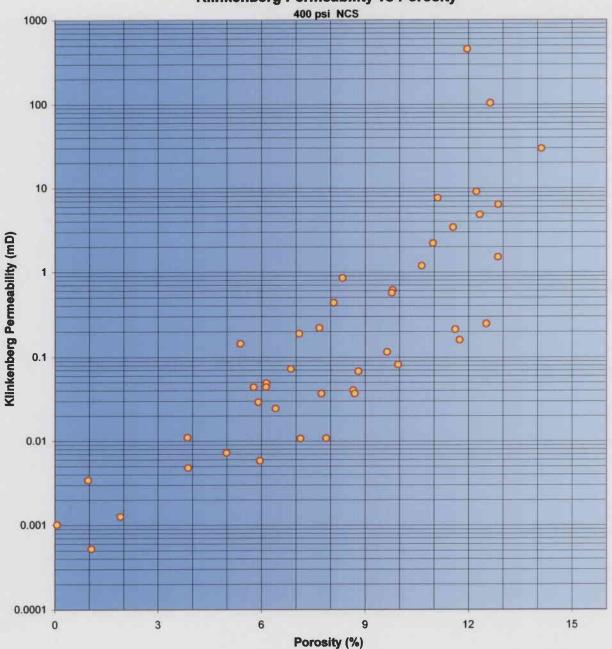
		ROIA	KI SIDE	WALL COR	EANAL	. 1 313			
						Grain	Saturation		
Sample	Depth	Net Confining	Porosity	Permeal	bility	Density	pore volume		
Number		Stress		Klinkenberg	Kair	g/cm3	total fluids	Description	Footnote
	ft	psig	%	md			%		
29	5459.0	400	5.0	0.01	0.02	2.67	59.6	Sst, lt gry, v f gr, v wl srt, v wl cmt, calc, sli s	hl lam
30	5493.5	400	5.9	0.03	0.06	2.65	16.3	Sst, lt gry, v f gr, v wl srt, v wl cmt, tr calc	
31	5516.0	400	7.7	0.22	0.32	2.63	86.9	Sst, lt gry, v f gr, v wl srt, v wl cmt, sli shl lan	n
32	5551.0	400	6.1	0.05	0.09	2.65	55.2	Sst, lt gry, f gr, wl srt, v wl cmt	
33	5637.5	400	7.7	0.04	0.07	2.66	58.8	Sst, lt gry, f gr, wl srt, v wl cmt	
34	5655.0	400	8.8	0.07	0.11	2.66	40.8	Sst, lt gry, v f gr, v wl srt, v wl cmt	
35	5700.0	400	6.1	0.04	0.08	2.63	32.3	Sst, lt gry, v f gr, v wl srt, v wl cmt, tr calc, sl	i shi lam
36	5708.0	400	7.1	0.19	0.28	2.64	20.8	Sst, lt gry, v f gr, v wl srt, v wl cmt, sli shl lar	n
37	5809.5	400	7.5	not suit	able	2.63	48.9	Sst, lt gry, v f gr, v wl srt, v wl cmt, sli shl lar	n
38	5845.0	400	9.8	0.61	0.80	2.66	90.7	Sst, lt gry, f gr, wl srt, wl cmt, calc, sli shl lan	n
39	6045.0	400	5.4	0.14	0.22	2.64	16.1	Sst, lt gry, v f gr, v wl srt, v wl cmt	
40	6211.0	400	6.0	0.01	0.01	2.68	15.5	Sst, lt gry, v f gr, v wl srt, v wl cmt, sli shl lar	n
41	6258.0	400	3.9	0.00	0.01	2.65	32.6	Sst, lt gry, v f gr, v wl srt, wl cmt, tr shl lam	
42	6281.0	400	9.8	0.57	0.81	2.67	86.6	Sst, lt gry, f gr, wl srt, wl cmt	
43	6290.0	400	8.7	0.04	0.07	2.66	12.8	Sst, lt gry, v f gr, v wl srt, v wl cmt	
44	6373.0	400	1.1	0.00	0.00	2.74	98.9	Sst, lt gry, v f gr, v wl srt, v wl emt, calc	
45	6509.5	400	7.1	0.01	0.02	2.69	58.0	Sst, lt gry, v f gr, v wl srt, v wl cmt, calc	
46	6647.0	400	7.9	0.01	0.02	2.71	40.1	Sst, lt gry, v f gr, v wl srt, v wl cmt, calc	



#### **Petro-Canada Resources**

Bryner 11-21 Carbon County, Utah



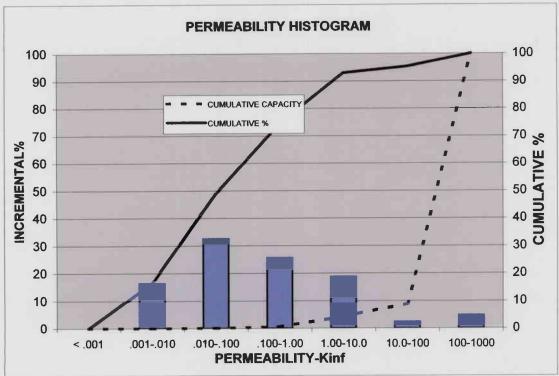


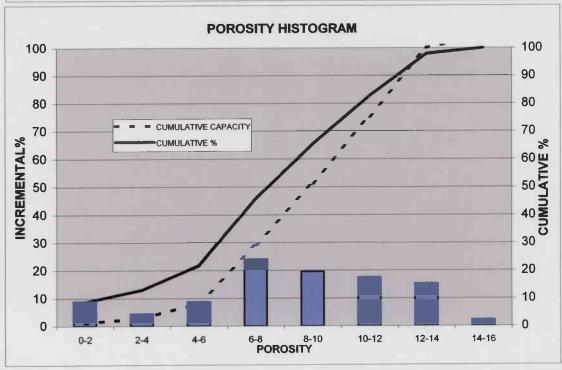


#### **Petro-Canada Resources**

Bryner 11-21 Carbon County, Utah

400 psi NCS





#### STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

	1	FI		E	N	T	1		FORM 9
$\sim$		. ,	$\boldsymbol{\smile}$	l-ma		ŧ		٠	FORM 9

[	DIVISION OF OIL, GAS AND MI			5. LEASE DESIGNATION AND Fee	SERIAL NUMBER:
SUNDRY	NOTICES AND REPORTS	S ON WEL	LS	6. IF INDIAN, ALLOTTEE OR	TRIBE NAME:
	ew wells, significantly deepen existing wells below cur	rent hottom-hole den	h reenter niversed wells or to	7. UNIT or CA AGREEMENT N	IAME:
drill horizontal la	terals. Use APPLICATION FOR PERMIT TO DRILL for	orm for such proposa	is.	n/a  8. WELL NAME and NUMBER	
1. TYPE OF WELL OIL WELL	GAS WELL OTHER _	Oryhole		BRYNER 11-21	•
2. NAME OF OPERATOR:				9. API NUMBER:	
Petro-Canada Resources  3. ADDRESS OF OPERATOR:	(USA) Inc	·	PHONE NUMBER:	007-31208 10. FIELD AND POOL, OR WI	LDCAT:
1099 18th St., Ste. 400 <sub>CITY</sub>	, Denver STATE CO ZIP	80202	(303) 297-2300	Wildcat	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 877' FI	NL, 2312' FWL			COUNTY: Carbon	
QTR/QTR, SECTION, TOWNSHIP, RAN	Section of Assert Control of the Con			STATE: UTA	
11. CHECK APPE	ROPRIATE BOXES TO INDICAT	E NATURE	OF NOTICE, REPO	ORT, OR OTHER DA	TA
TYPE OF SUBMISSION			YPE OF ACTION		
NOTICE OF INTENT	ACIDIZE	DEEPEN		REPERFORATE CUR	
(Submit in Duplicate)	ALTER CASING	FRACTURE NEW CONS		TEMPORARILY ABAN	
Approximate date work will start:	CASING REPAIR  CHANGE TO PREVIOUS PLANS	OPERATOR		TUBING REPAIR	DON
	CHANGE TUBING	PLUG AND		VENT OR FLARE	
SUBSEQUENT REPORT	CHANGE WELL NAME	PLUG BACI		WATER DISPOSAL	
(Submit Original Form Only)	CHANGE WELL STATUS	PRODUCTI	ON (START/RESUME)	WATER SHUT-OFF	
Date of work completion:	COMMINGLE PRODUCING FORMATIONS	RECLAMAT	ION OF WELL SITE	OTHER:	
3/30/2007	CONVERT WELL TYPE	RECOMPLE	TE - DIFFERENT FORMATION		
1) Set cement retainer at 6260'. + additives on top of retainer.	OMPLETED OPERATIONS. Clearly show all p Pump 20 sacks of Class G cement + add Pump 20 sacks of Class G cement + add	ditives slurry thr	ough retainer. Pull out of	f retainer and spot 5 sacks	
+ additives on top of retainer.					
Plug spotted from 3830' to 3931					
4) Perforate 5-½" casing at 1095 Pull out of retainer and spot 11 s	5' with 4 spf. Set cement retainer at 1085 sacks of Class G cement + additives on to	o' and pump 25 s op of retainer.	acks of Class G cement	+ additives slurry through	cement retainer.
marker in accordance with State	ace with 25 sacks of Class G cement + a e of Utah rules and regulations. All plug s and also inspected by Ted Smith, State of	settings and cerr	enting witnessed by Ted	f Smith, State of Utah inspe	as subsurface ector.
Surface reclamation shall be cor	nducted in accordance with R649-3-34 ar	nd evidence of s	ame will be provided to t	the Division upon completion	on.
Petro-Canada requests CONFID	DENTIAL status for the subject well record	ds -			
NAME (PLEASE PRINT) SUSAN MI	ller	TIT	_ Regulatory Anal	lyst	
SIGNATURE Mi	v	DA	4/20/2007		
(This space for State use only)		·····		5505	EIVED

RECEIVED APR 2 / 2007